

FIG. 1

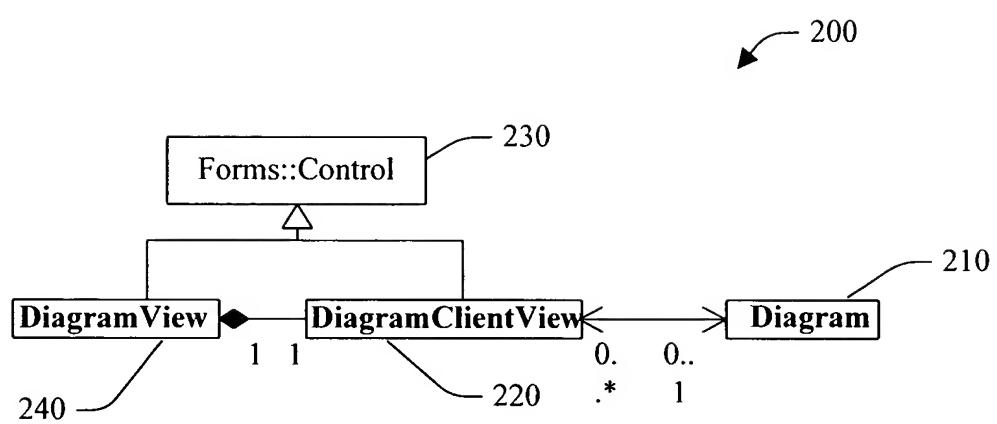


FIG. 2

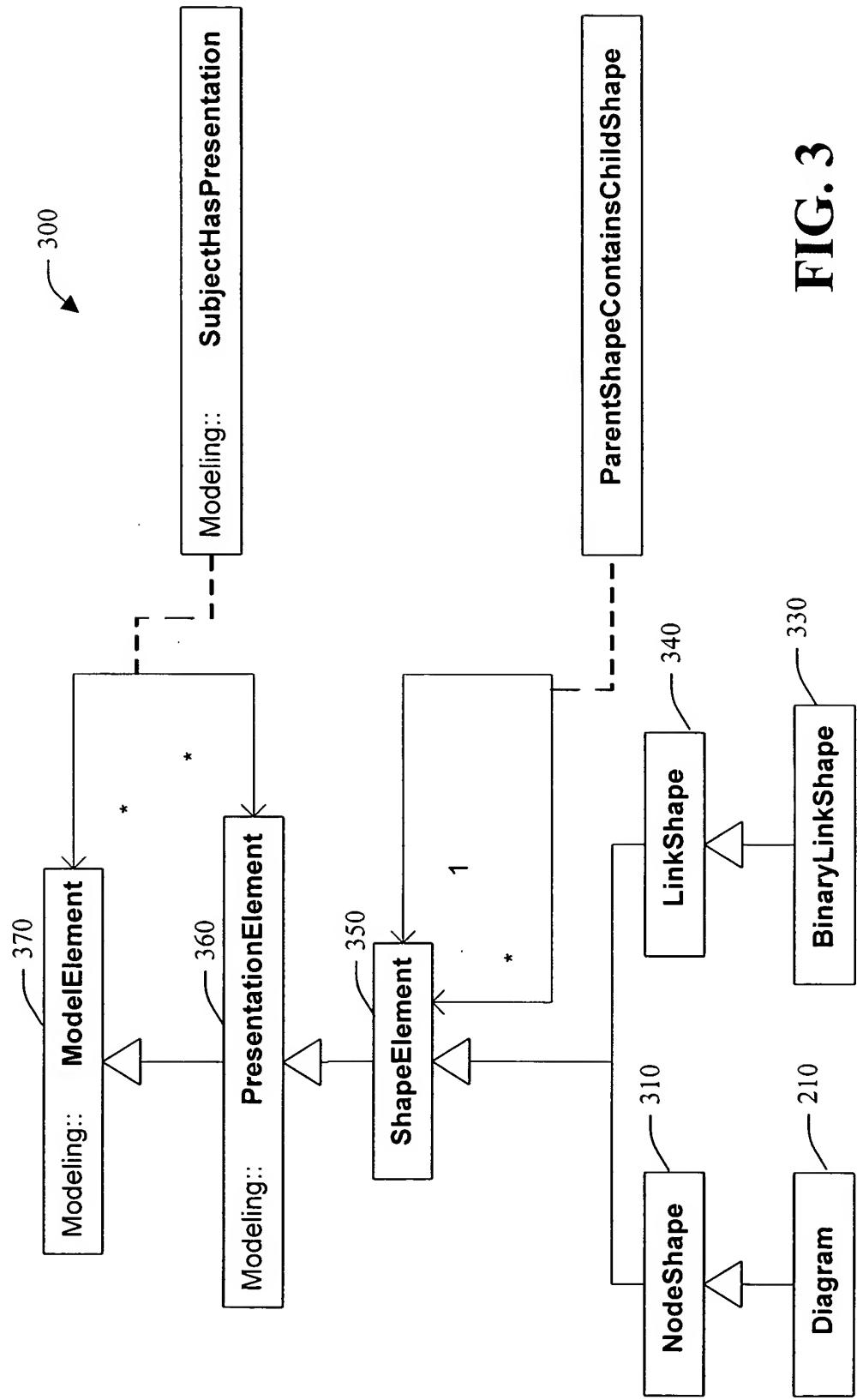


FIG. 3

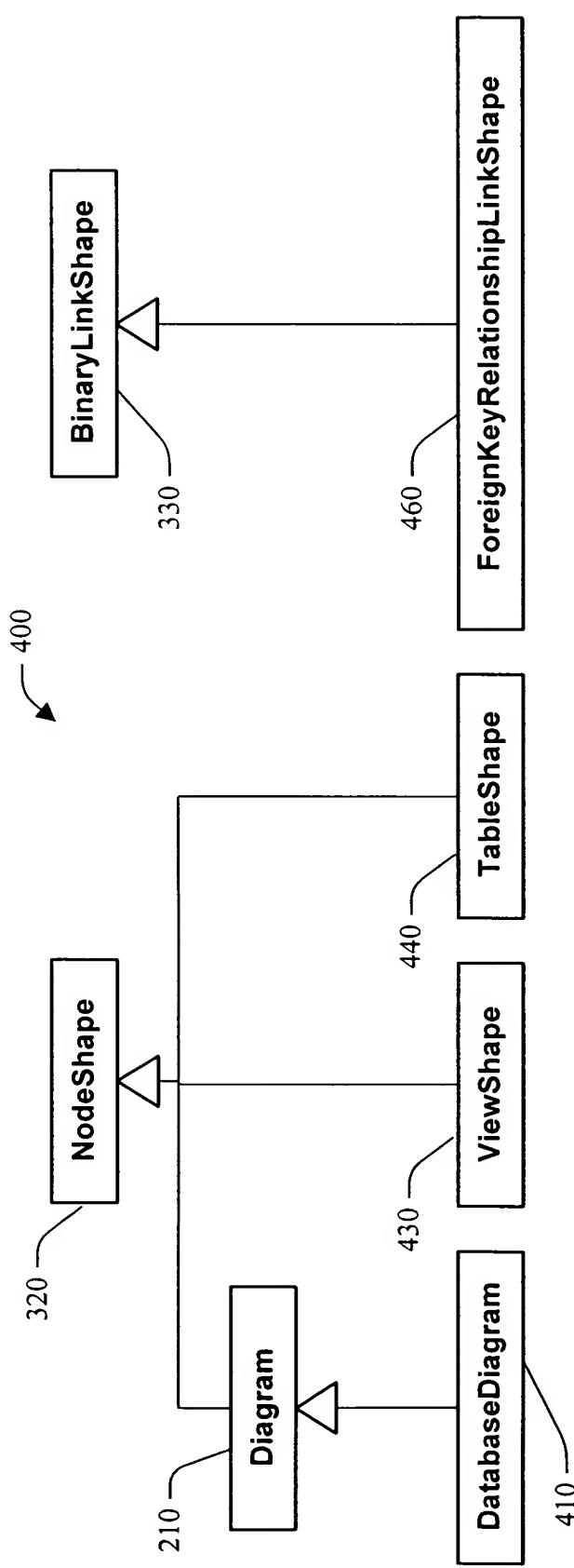


FIG. 4

ShapeElement
+Invalidate(in absoluteShapeBounds : RectangleD) +DoHitTest(in point : PointD, in hitTestInfo : DiagramHitTestInfo) : bool +OnPaintShape(in paintArgs : DiagramPaintEventArgs) +OnPaintSelection(in paintArgs : DiagramPaintEventArgs) +OnPaintFeedback(in paintArgs : DiagramPaintEventArgs) +OnMouseDown(in mouseArgs : DiagramMouseEventArgs) +OnMouseMove(in mouseArgs : DiagramMouseEventArgs) +OnMouseUp(in mouseArgs : DiagramMouseEventArgs) +OnDragOver(in diagramDragArgs : DiagramDragEventArgs) +OnDragDrop(in diagramDragArgs : DiagramDragEventArgs) +OnKeyDown(in keyArgs : DiagramKeyEventArgs) +OnKeyUp(in keyArgs : DiagramKeyEventArgs) +OnKeyPress(in keyPressArgs : DiagramKeyPressEventArgs) + <i>ShapeFields()</i> : ShapeFieldCollection +AddChild(in childShape : ShapeElement) +Parent() : ShapeElement +Diagram() : Diagram +Children() : IList #ShapeGeometry() : ShapeGeometry +AbsoluteBoundingBox() : RectangleD +BoundingBox() : RectangleD +ZOrder() : double +StyleSet() : StyleSet

FIG. 5

600

<i>NodeShape</i>
+AbsoluteBounds() : RectangleD
+Bounds() : RectangleD
+Location() : PointD
+Size() : SizeD
+BoundsRules() : BoundsRules
-GetCompliantBounds(in proposedBounds : RectangleD) : RectangleD

FIG. 6

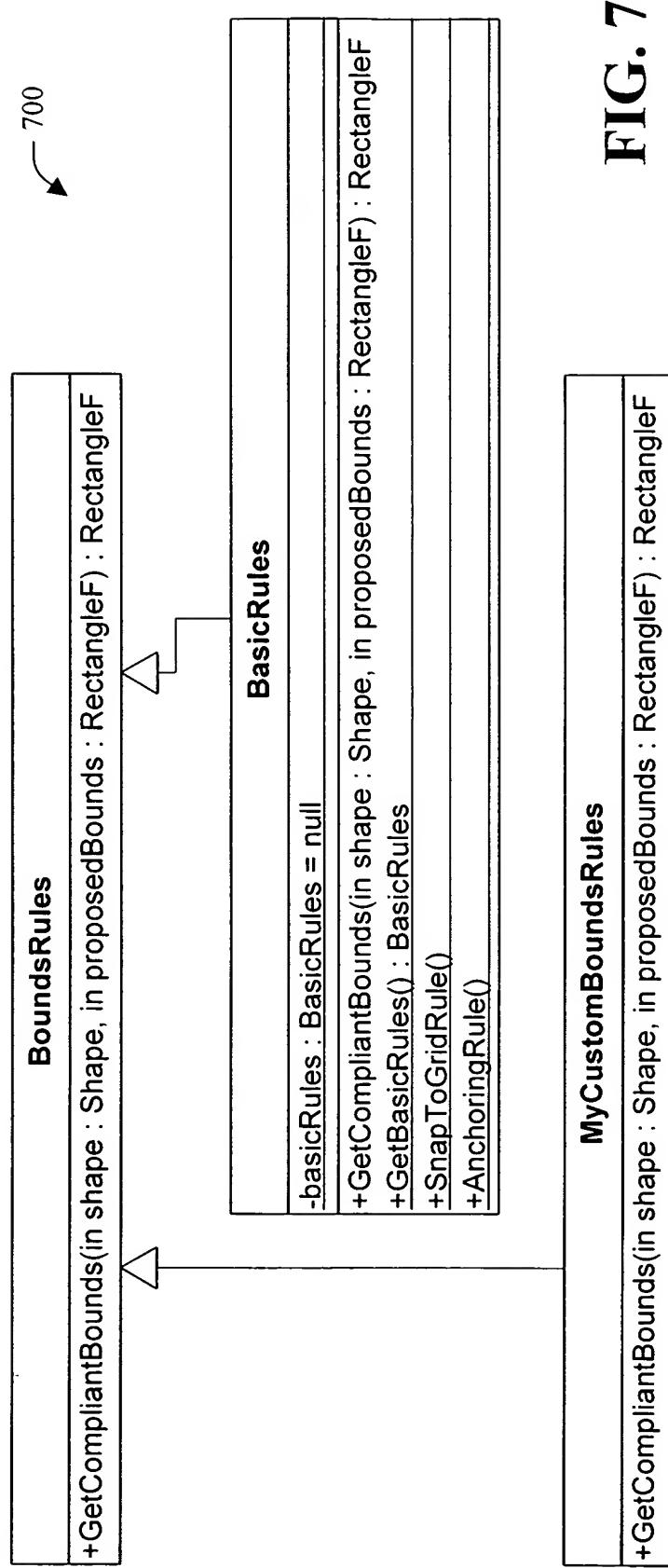


FIG. 7

800

<i>Diagram</i>
+SnapToGrid() : bool +ShowGrid() : bool +Associate(in designSurface : DesignSurface) +Unassociate(in designSurface : DesignSurface) +Graph() : GraphWrapper

FIG. 8

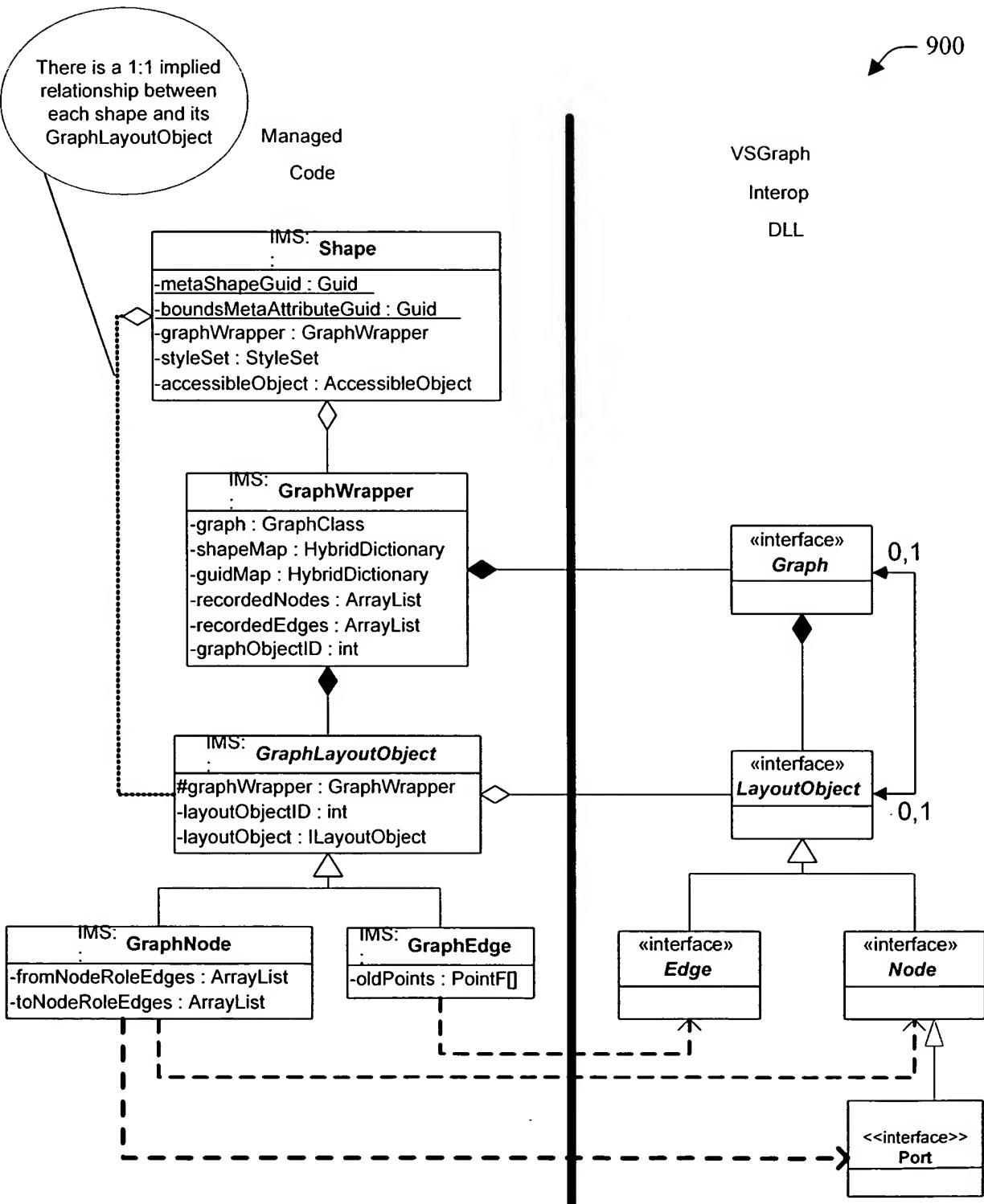


FIG. 9

1000

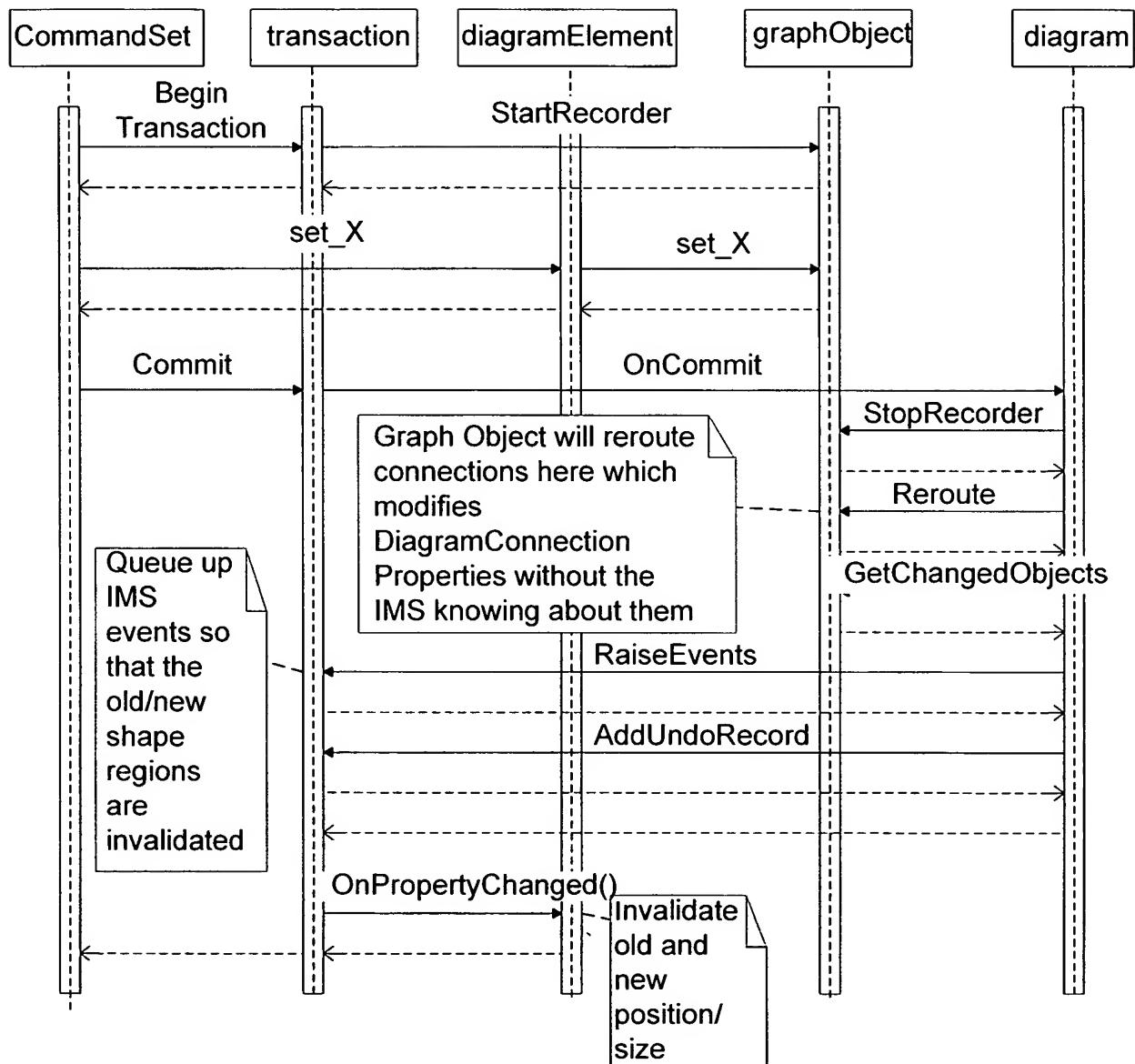


FIG. 10

1100 ↘

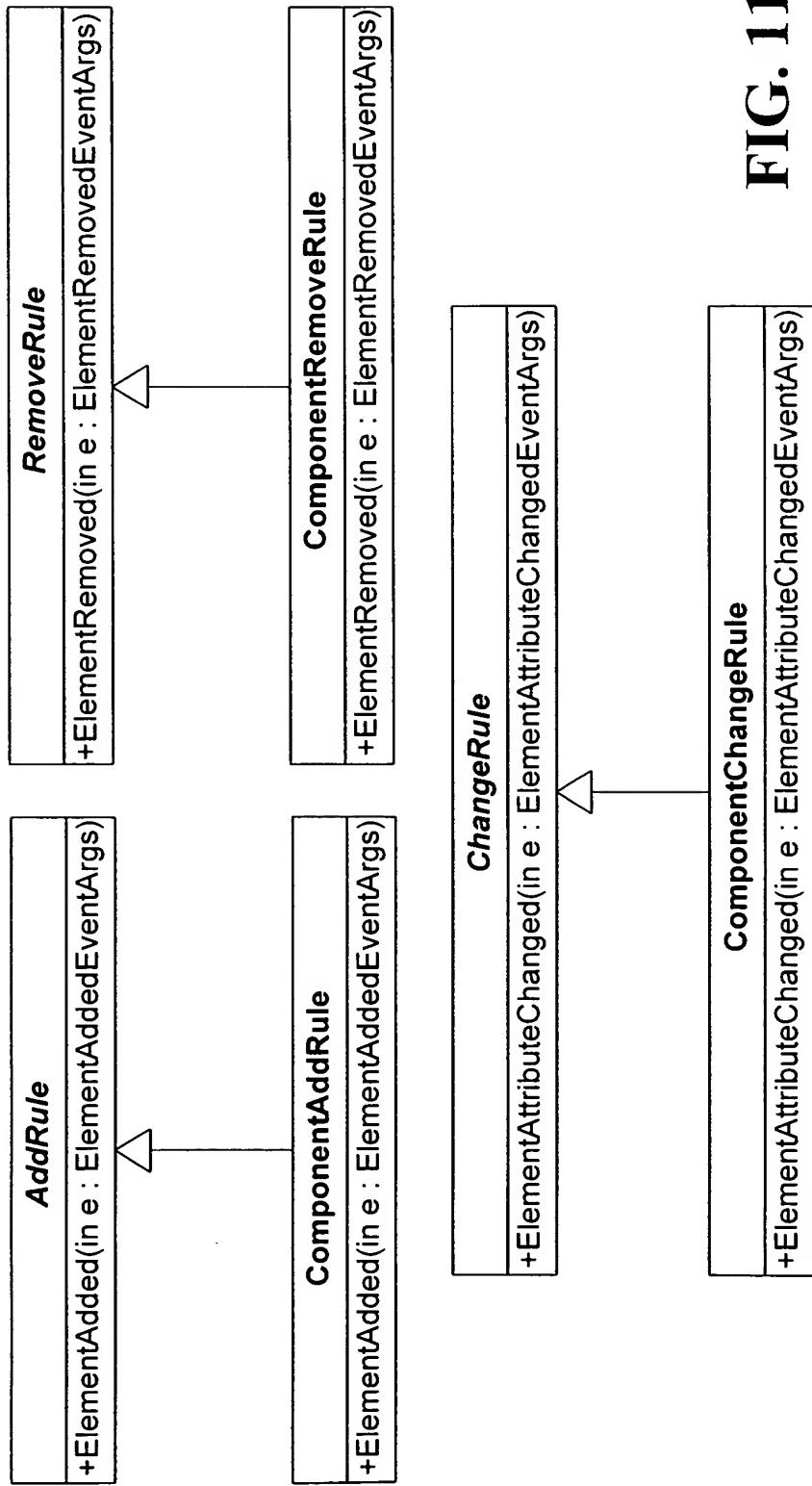


FIG. 11

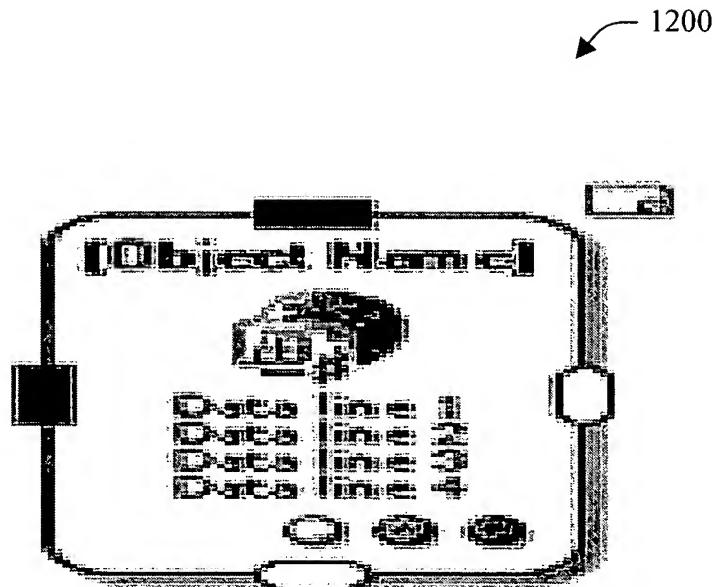


FIG. 12

1300

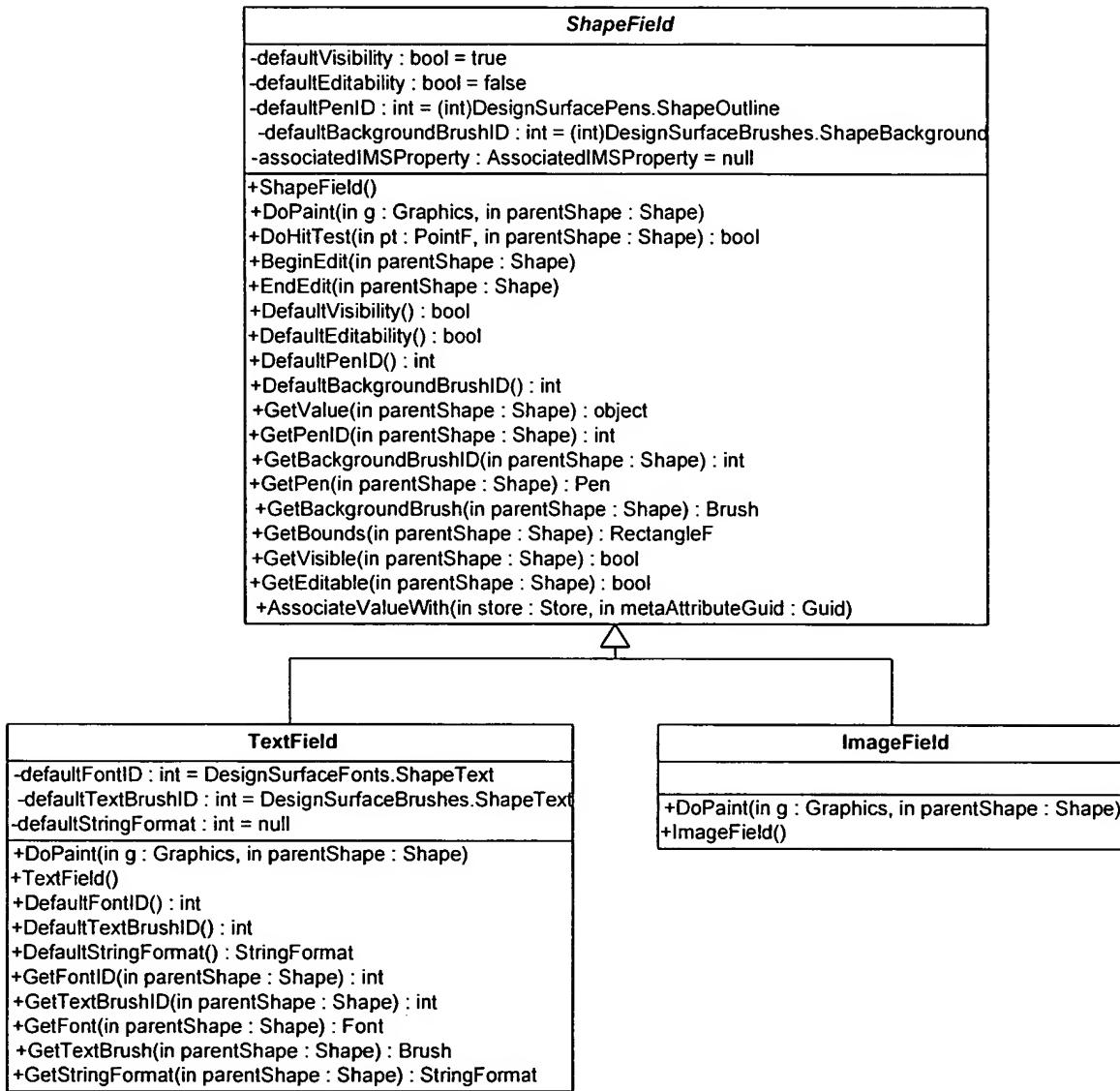
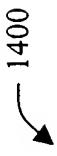


FIG. 13

FIG. 14



AssociatedIMSPROPERTY	
-propDesc : IMSPROPERTYDescriptor = null	
-store : Store = null	
#OnPropertyChangedHandler : ElementAttributeChangedEventHandler = null	
-AssociatedIMSPROPERTY()	
+AssociatedIMSPROPERTY(in store : Store, in metaAttributeGuid : Guid)	
+GetValue(in parentShape : Shape) : object	
#PropDescriptor() : IMSPROPERTYDescriptor	
+SubscribeToPropertyChangedEvent()	
+UnsubscribeFromPropertyChangedEvent()	
-OnPropertyChanged(in e : ElementAttributeChangedEventArgs)	

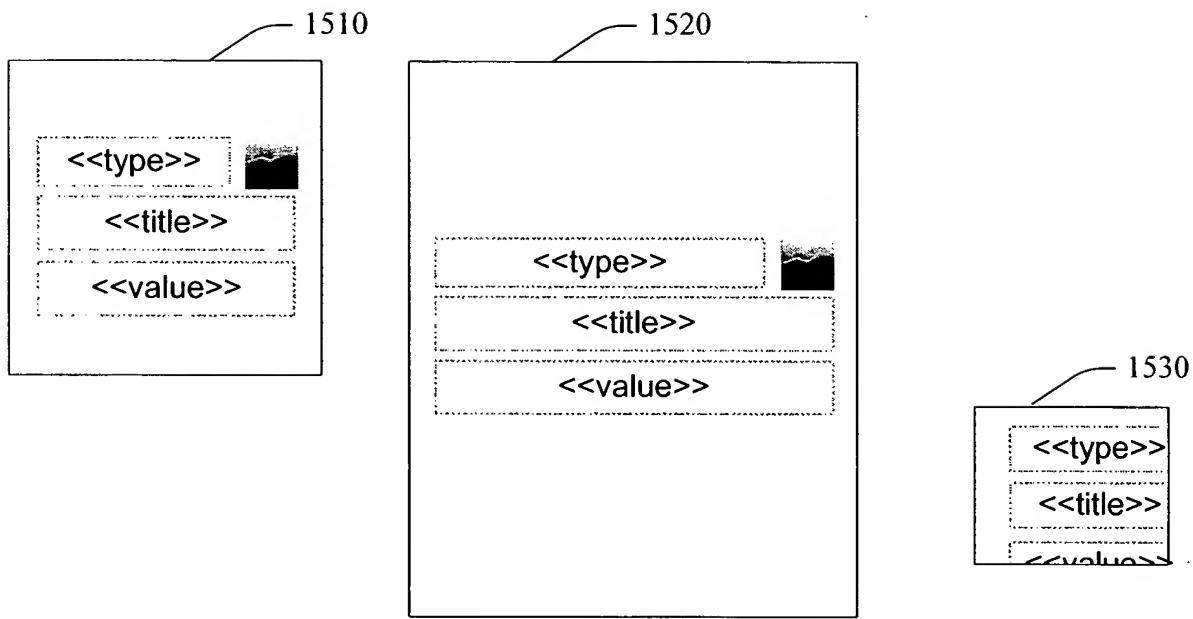


FIG. 15

FIG. 16

1600

BoundsBehavior

```
+leftAnchor : AnchorTarget
+rightAnchor : AnchorTarget
+bottomAnchor : AnchorTarget
+topAnchor : AnchorTarget
+horizontalSprings : Suspension
+verticalSprings : Suspension
+master : ShapeField
-minimumWidth : float
-minimumWidthInCharacters : float
-minimumHeight : float
-minimumHeightInLines : float

+MinimumWidth() : float
+MinimumWidthInCharacters() : float
+MinimumHeight() : float
+MinimumHeightInLines() : float
-isHorizontalCyclic(in sibling : ShapeField) : bool
-isVerticalCyclic(in sibling : ShapeField) : bool
+BoundsBehavior(in shapeField : ShapeField)
+SetLeftAnchor(in side : Edge, in margin : float)
+SetLeftAnchor(in sibling : ShapeField, in side : Edge, in margin : float)
+SetLeftAnchor(in sibling : Shape, in side : Edge, in margin : float)
+SetLeftAnchor(in side : Edge, in margin : float, in percentage : float)
+SetLeftAnchor(in sibling : ShapeField, in side : Edge, in margin : float)
+SetLeftAnchor(in sibling : Shape, in side : Edge, in margin : float)
+SetLeftAnchor(in side : Edge, in margin : float, in percentage : float)
+SetRightAnchor(in side : Edge, in margin : float)
+SetRightAnchor(in sibling : ShapeField, in side : Edge, in margin : float)
+SetRightAnchor(in sibling : Shape, in side : Edge, in margin : float)
+SetRightAnchor(in side : Edge, in margin : float, in percentage : float)
+SetRightAnchor(in sibling : ShapeField, in side : Edge, in margin : float)
+SetRightAnchor(in sibling : Shape, in side : Edge, in margin : float)
+SetTopAnchor(in side : Edge, in margin : float)
+SetTopAnchor(in sibling : ShapeField, in side : Edge, in margin : float)
+SetTopAnchor(in sibling : Shape, in side : Edge, in margin : float)
+SetTopAnchor(in side : Edge, in margin : float)
+SetBottomAnchor(in sibling : ShapeField, in side : Edge, in margin : float)
+SetBottomAnchor(in sibling : Shape, in side : Edge, in margin : float)
+SetBottomAnchor(in side : Edge, in margin : float, in percentage : float)
+SetBottomAnchor(in sibling : ShapeField, in side : Edge, in margin : float, in percentage : float)
+SetBottomAnchor(in sibling : Shape, in side : Edge, in margin : float, in percentage : float)
```

1600

FIG. 17

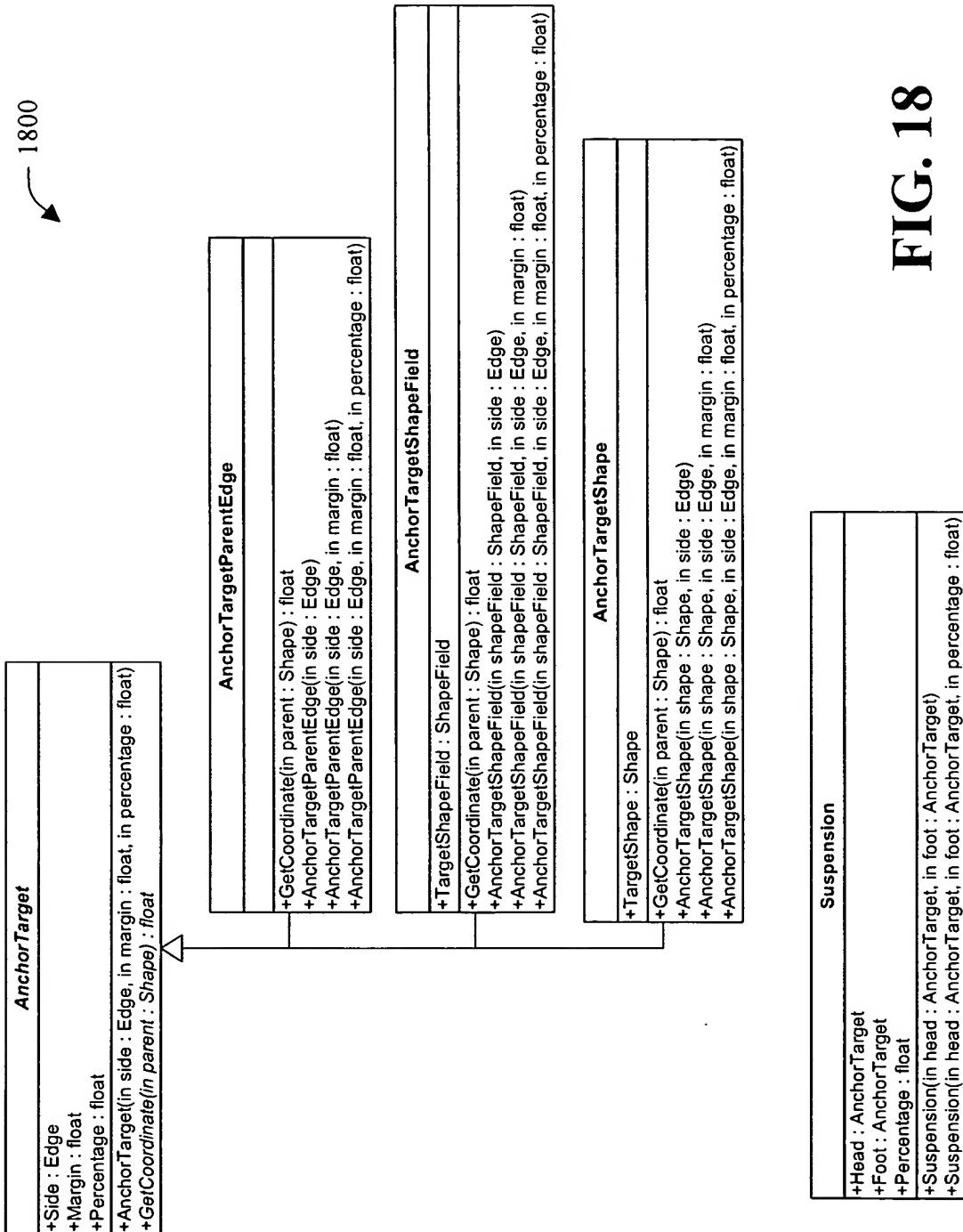


FIG. 18

1900

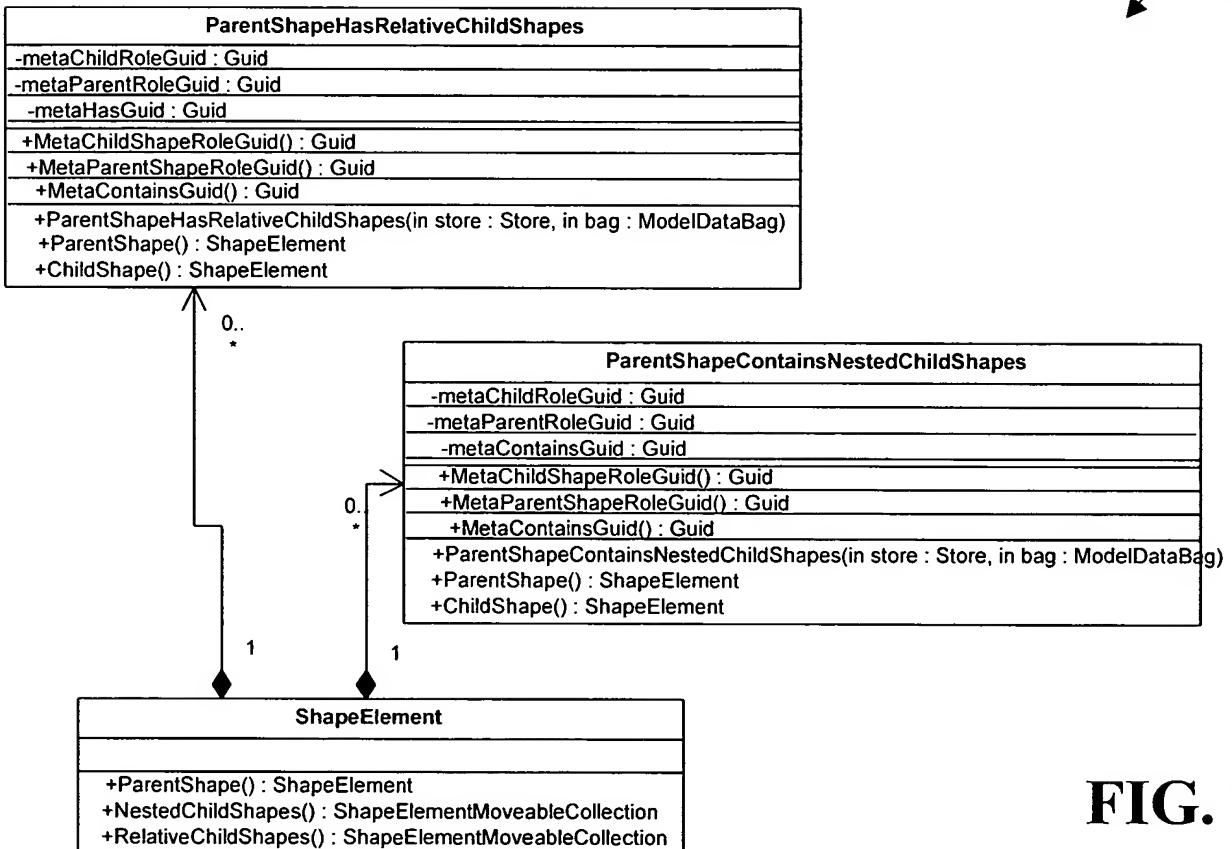


FIG. 19

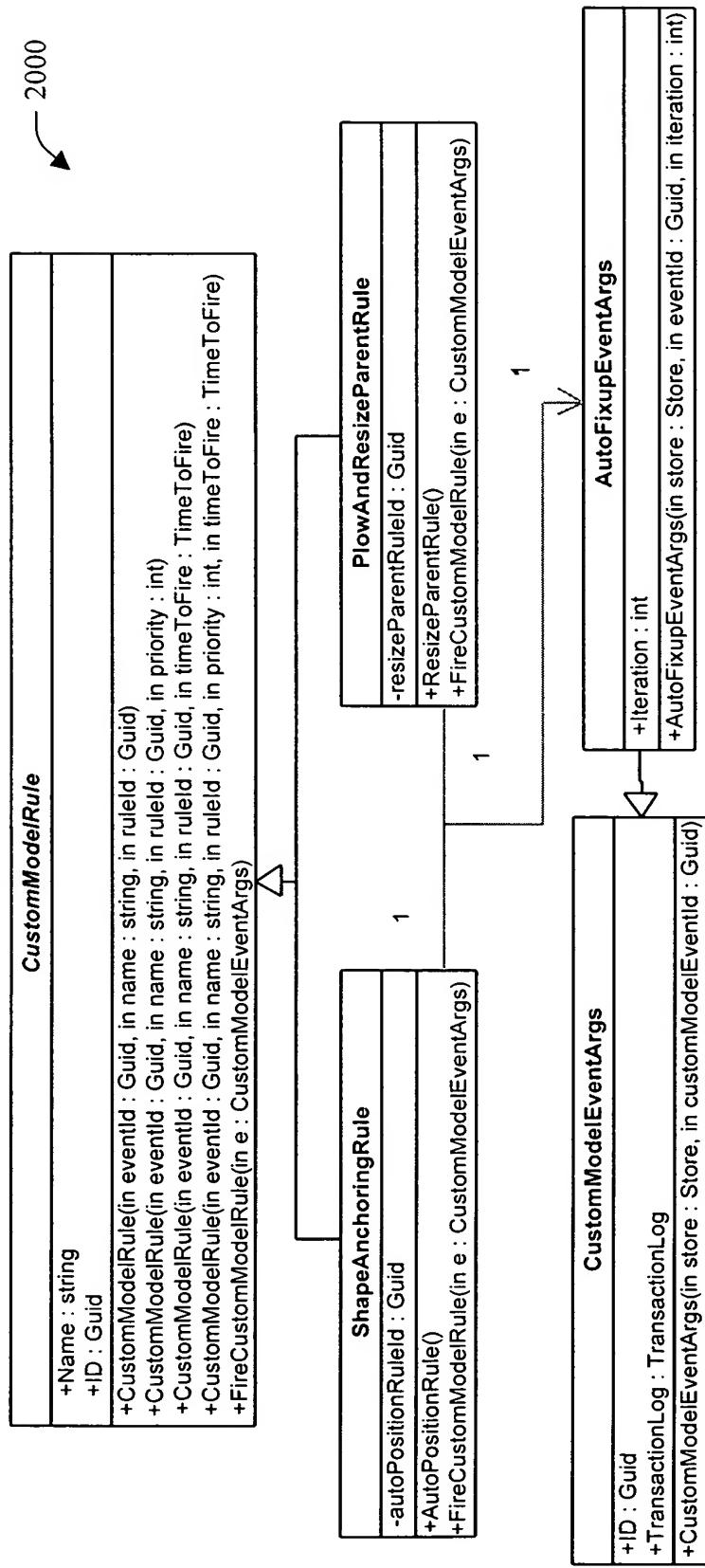
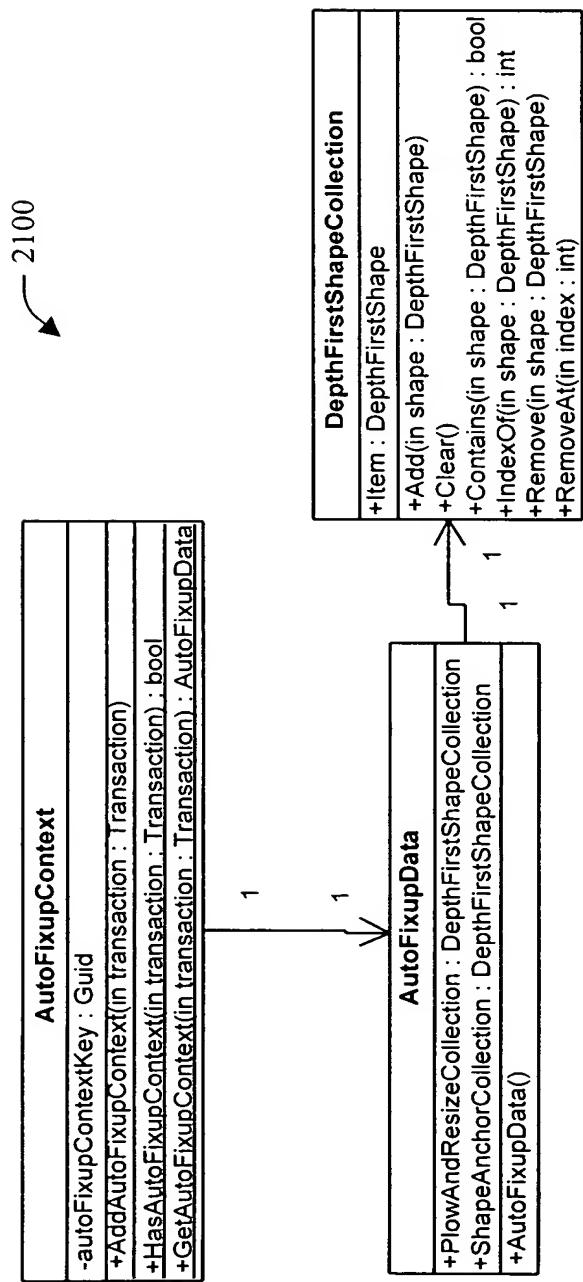


FIG. 20

FIG. 21



2200

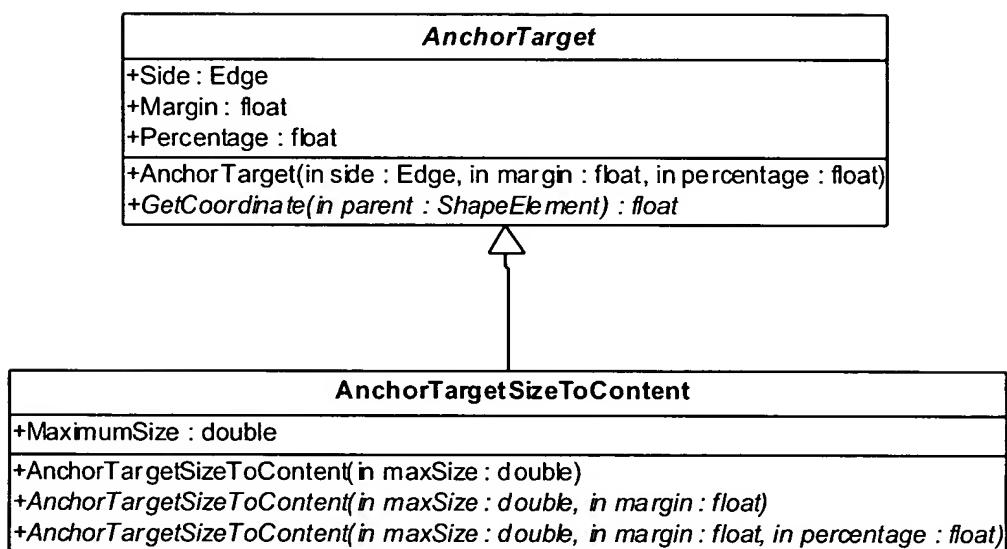


FIG. 22

2300

ShapeElement
+Visible : bool = true
+Collapse()
+Expand()

FIG. 23

2350

PORt CONNECTION DIRECTION DETERMINATION

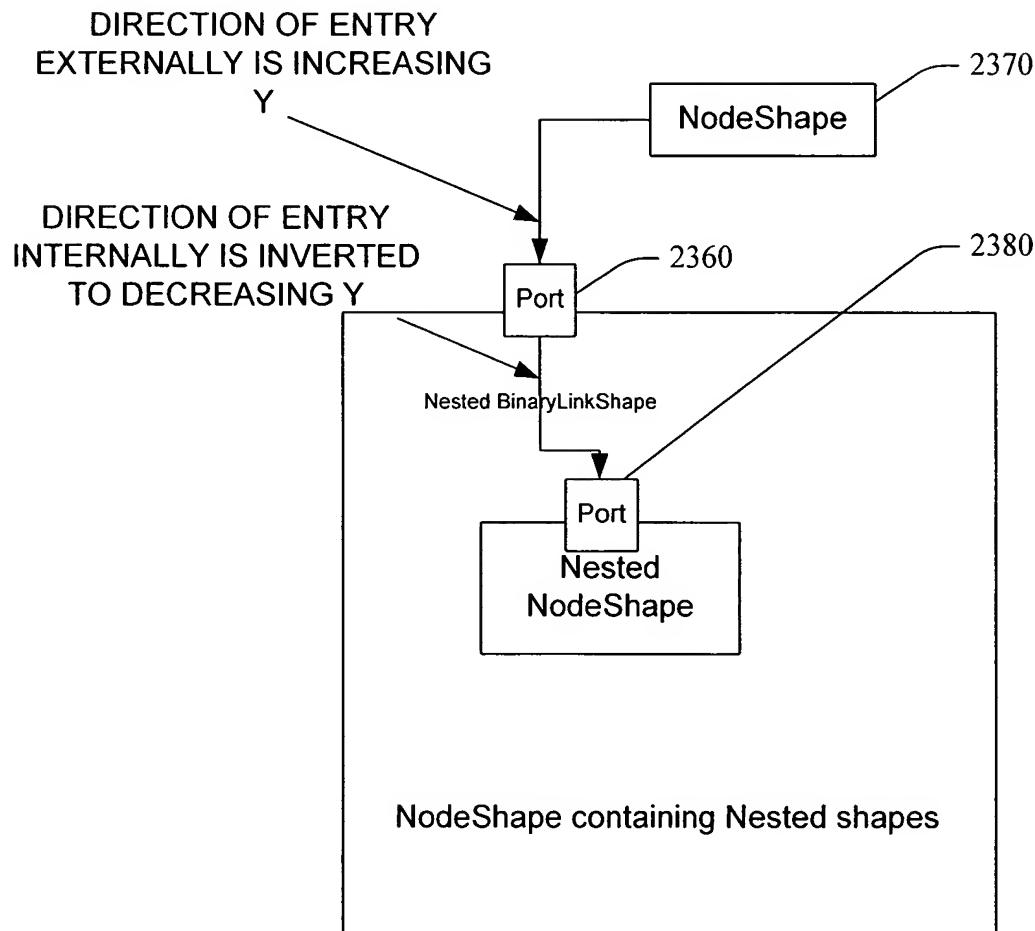


FIG. 23A

2400 ↘

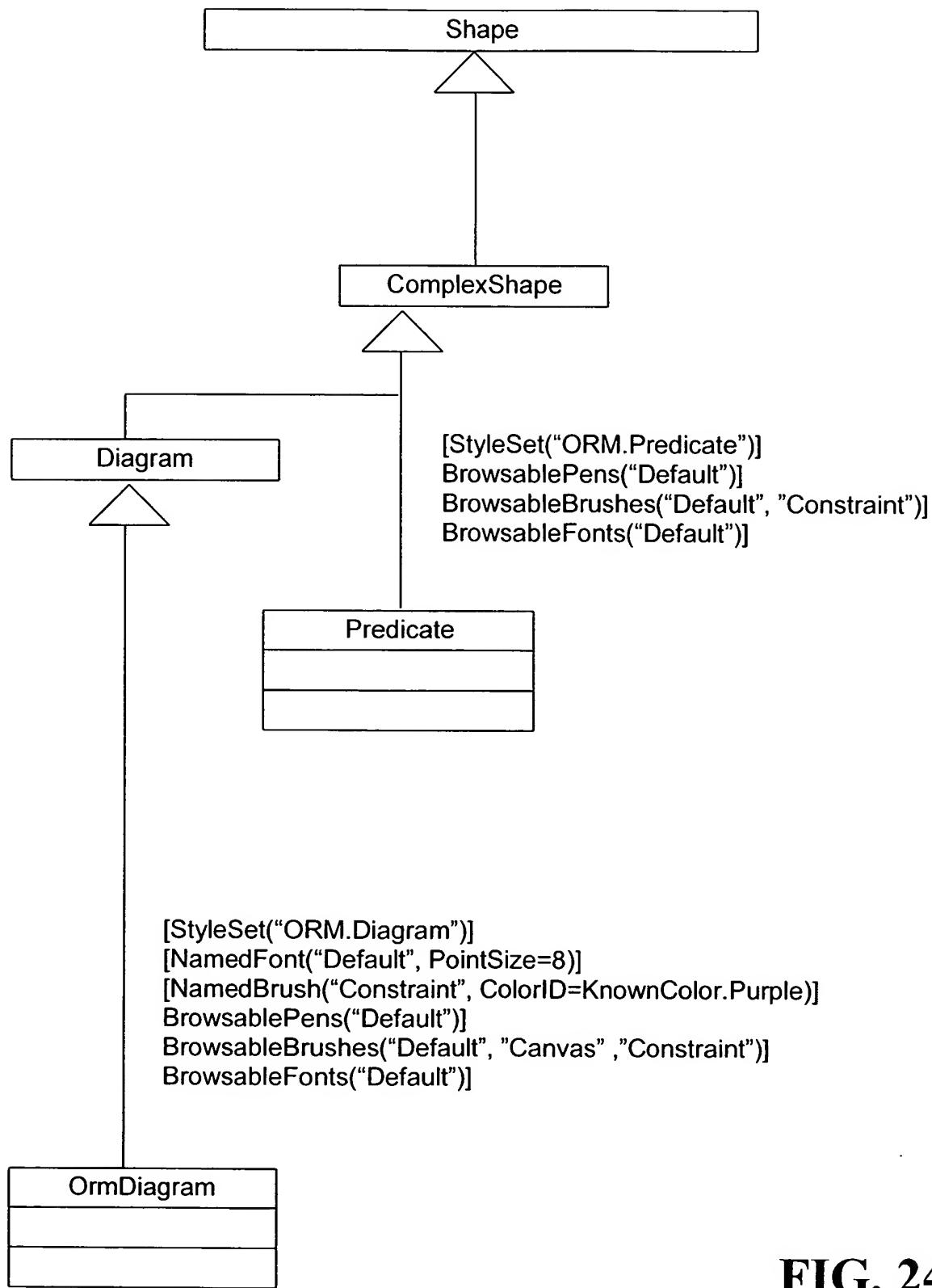


FIG. 24A

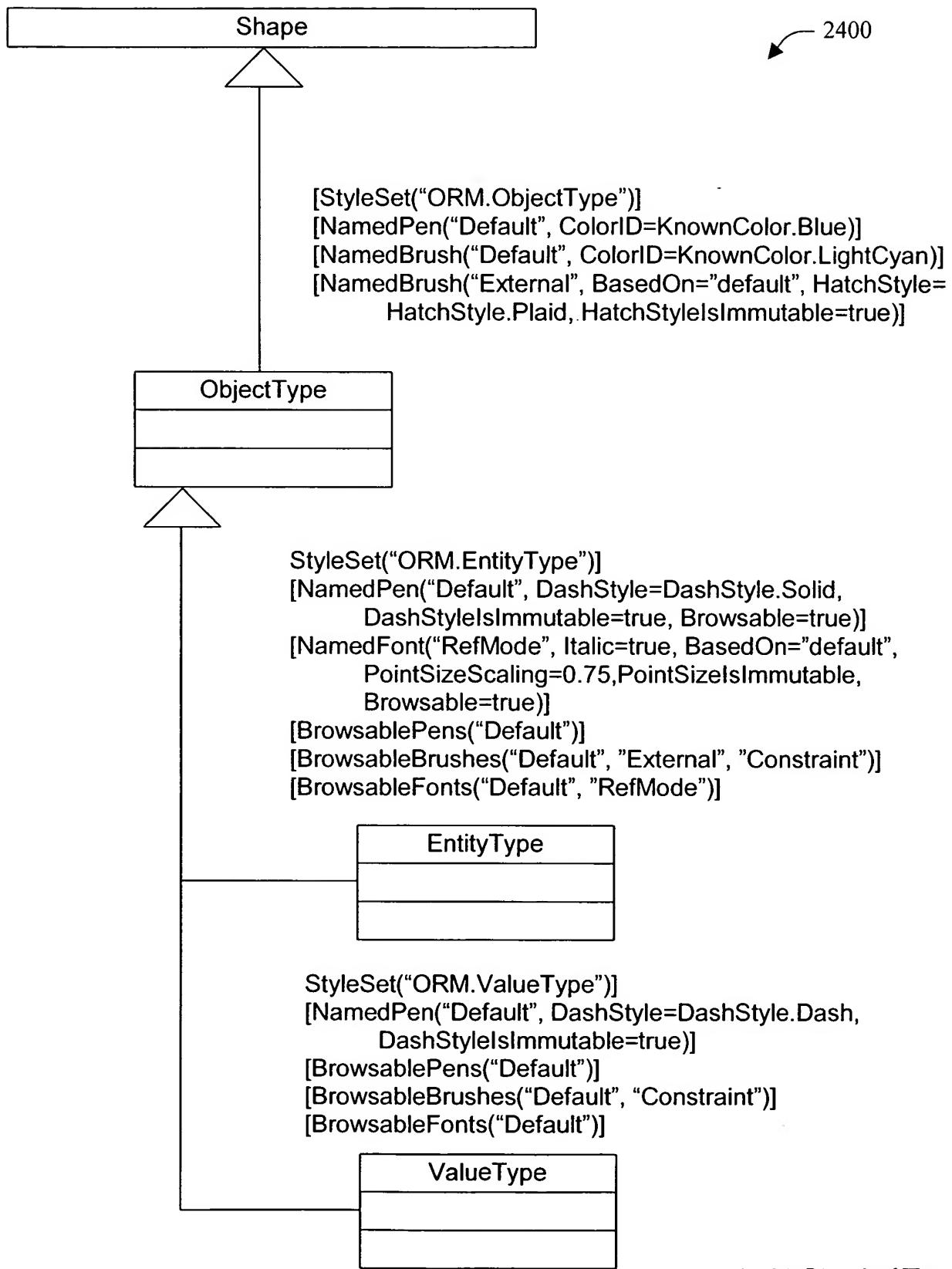


FIG. 24B

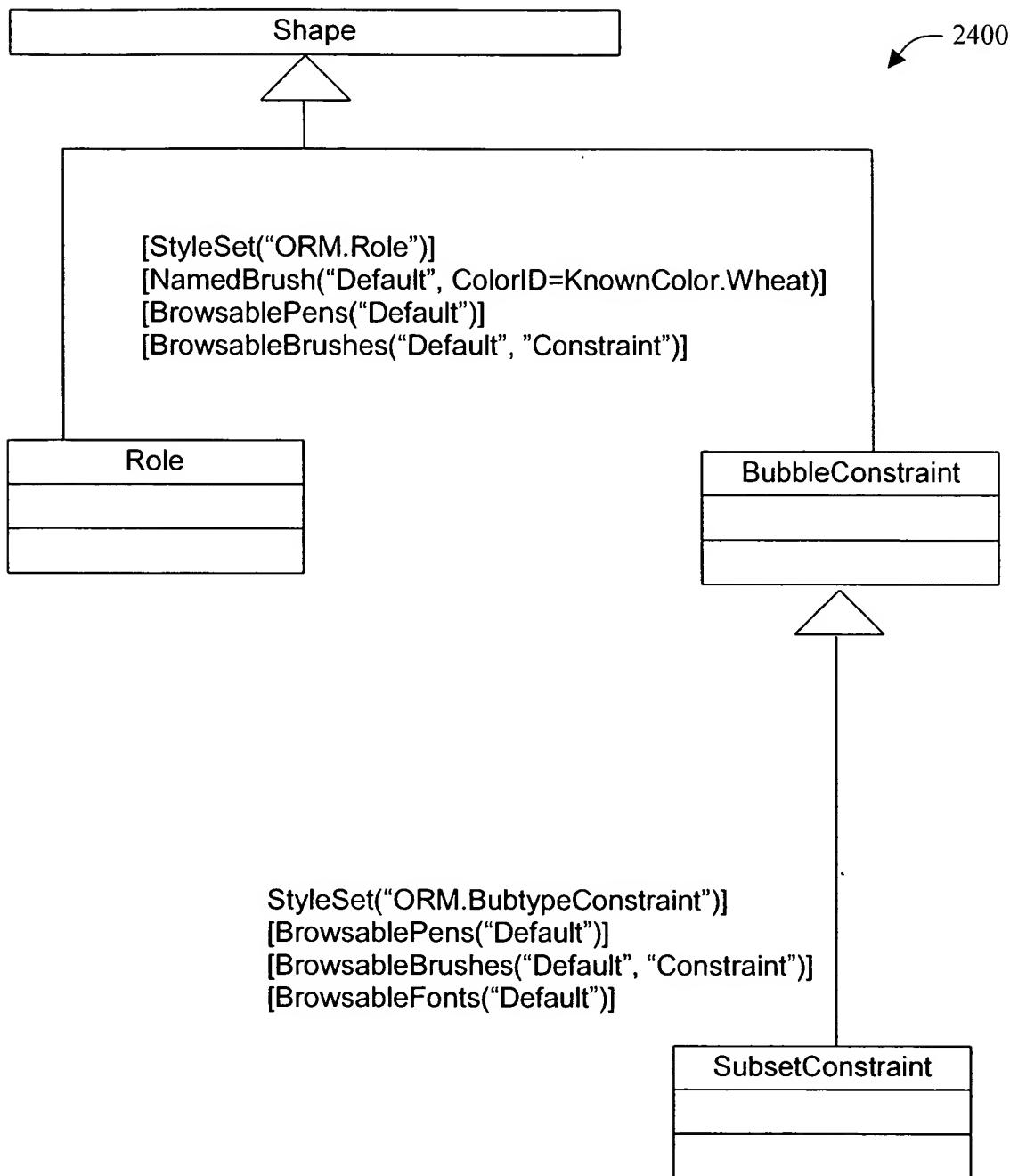


FIG. 24C

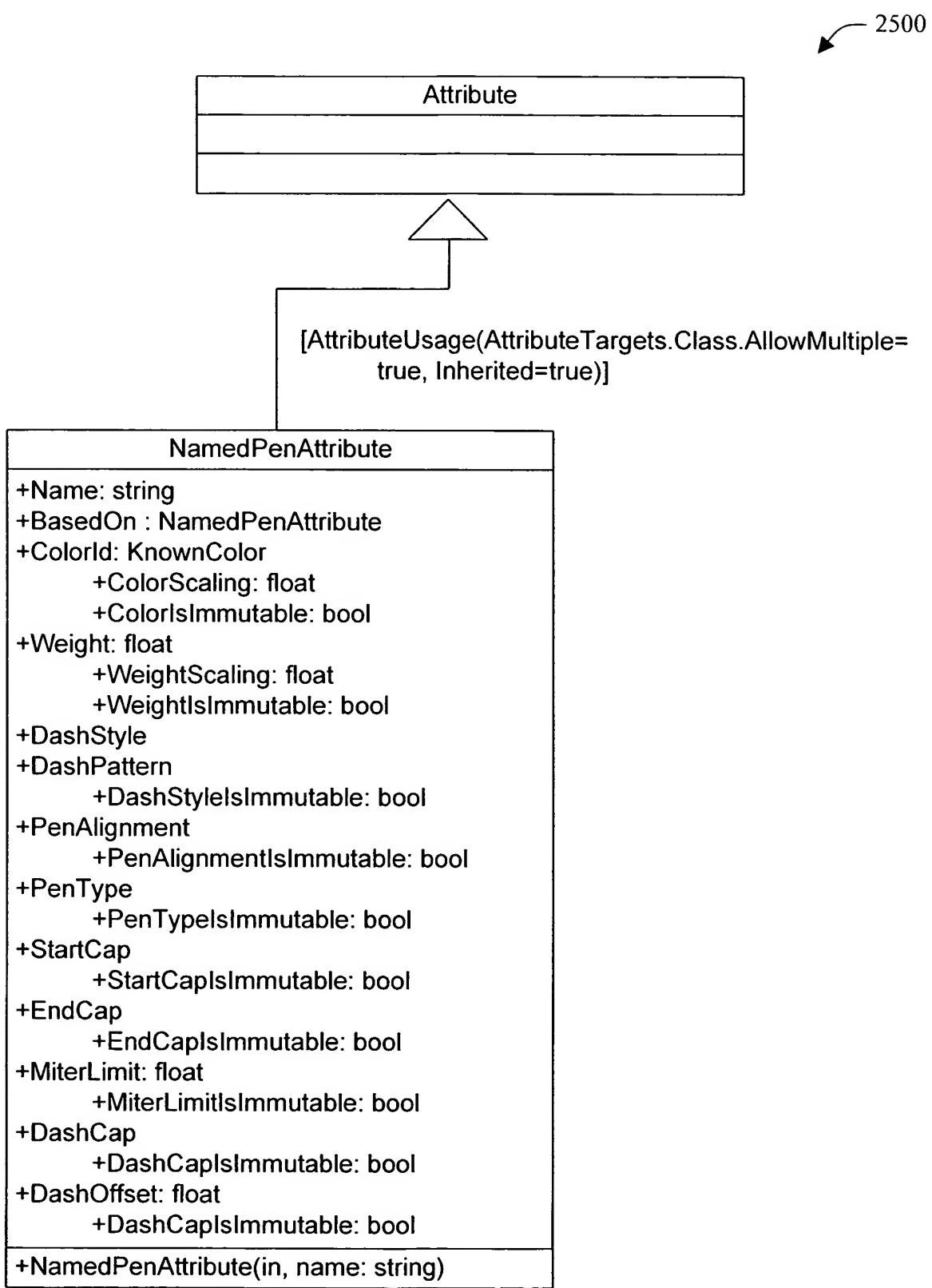


FIG. 25A

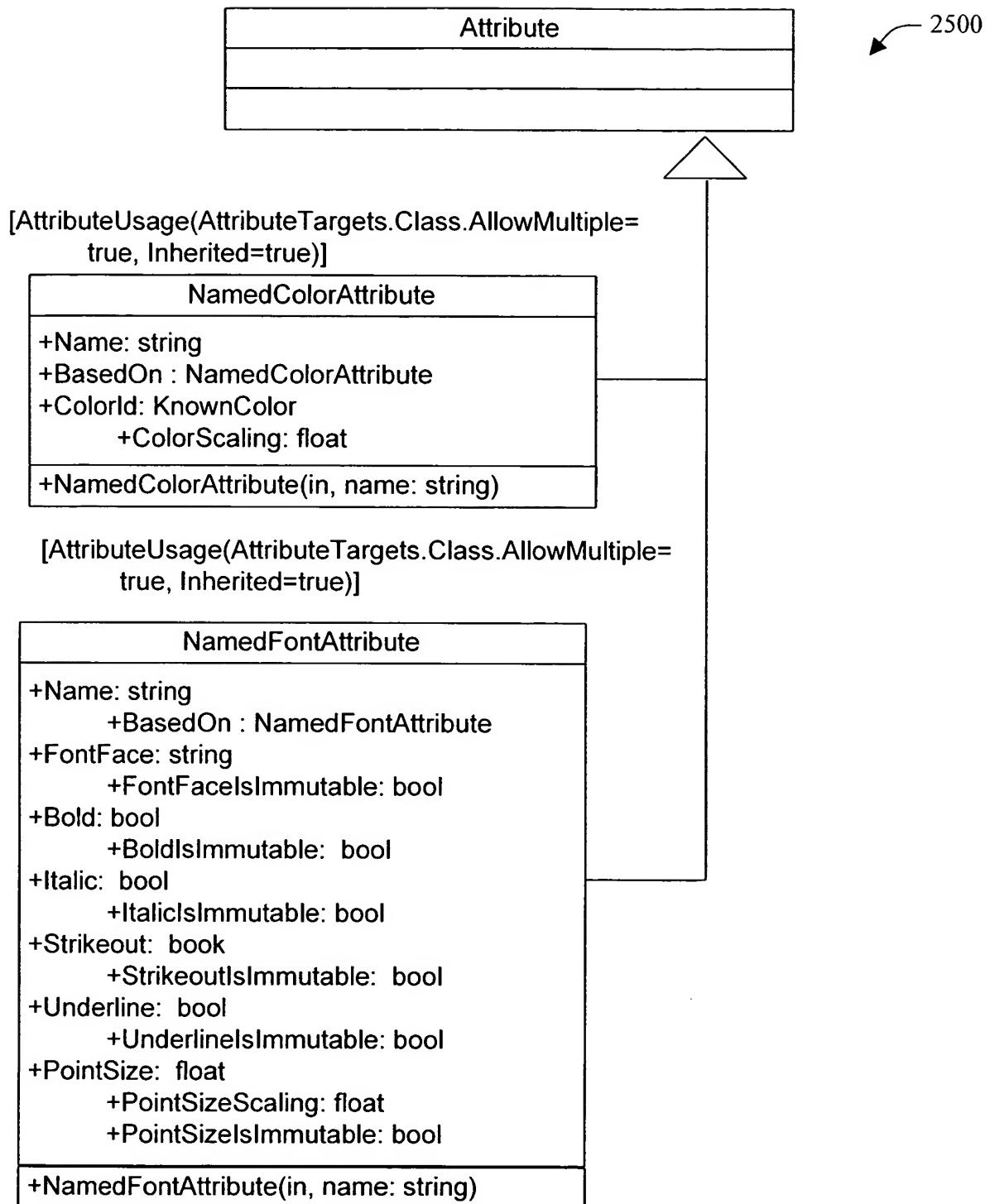


FIG. 25B

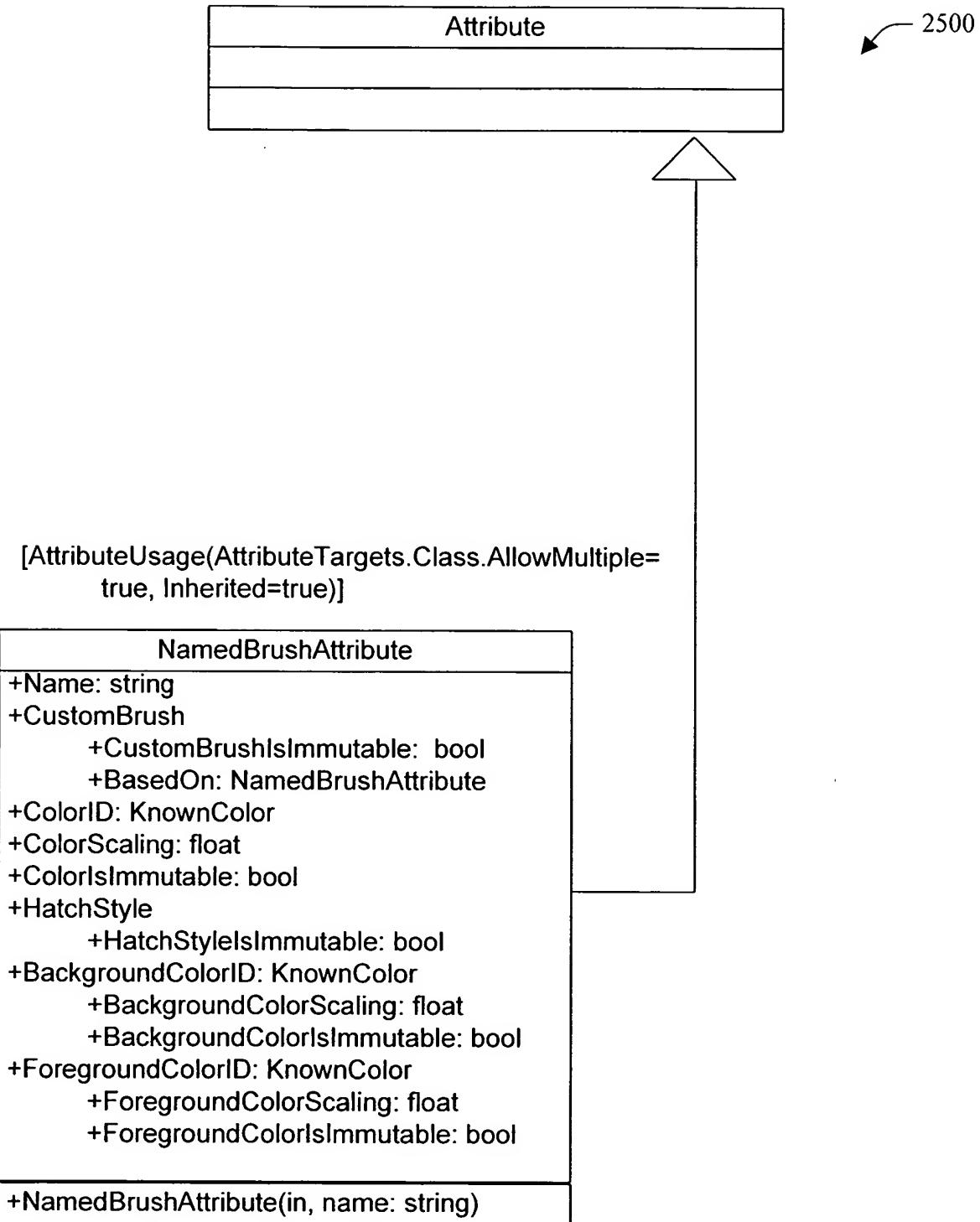


FIG. 25C

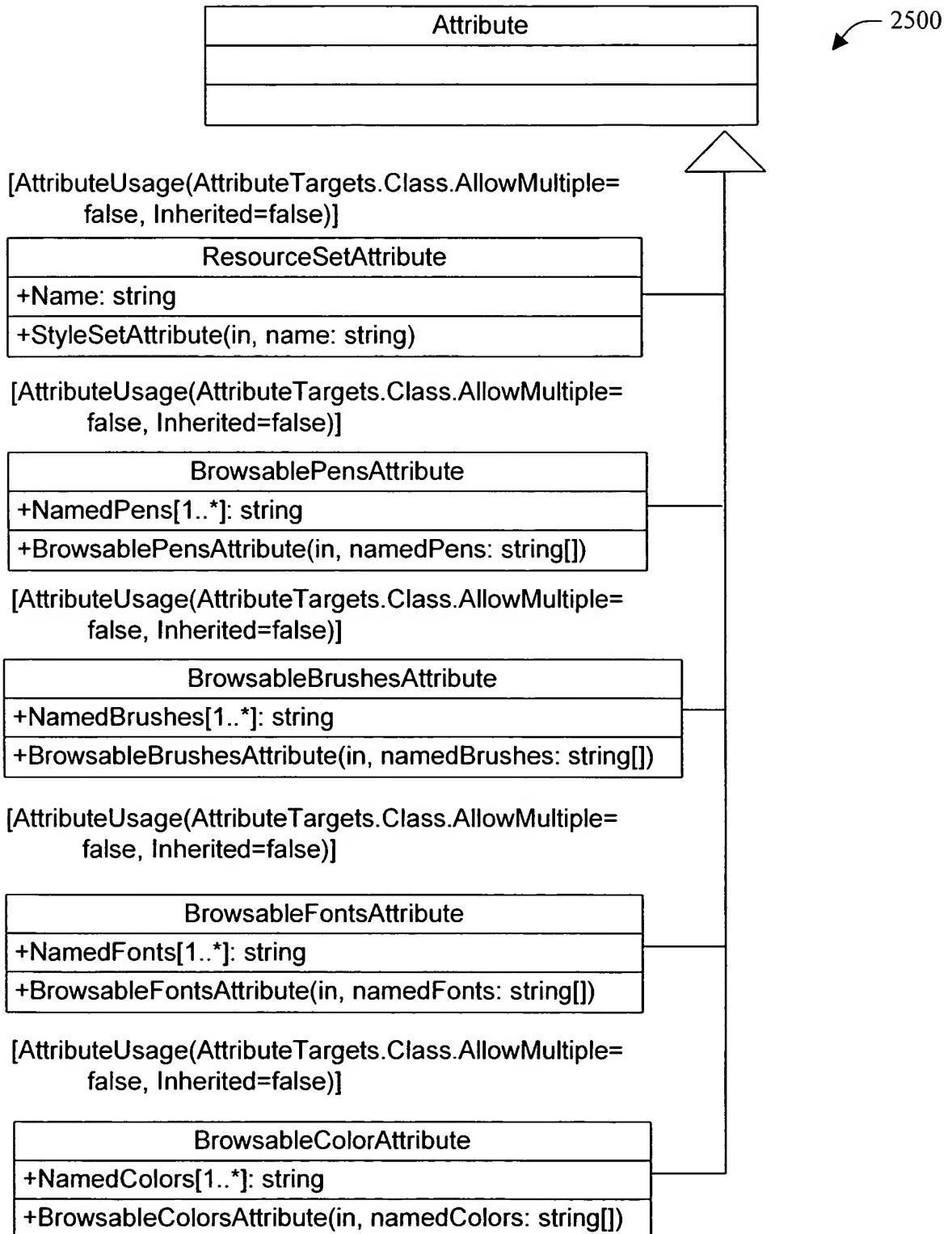


FIG. 25D

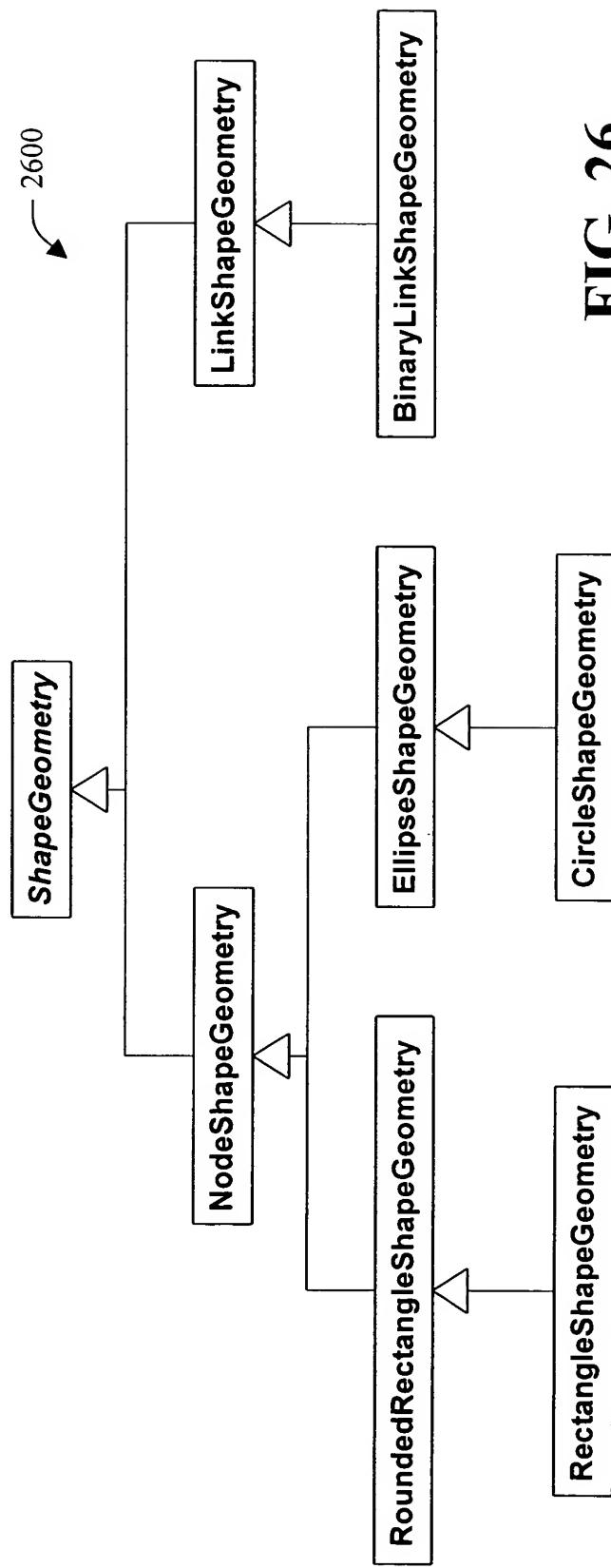


FIG. 26

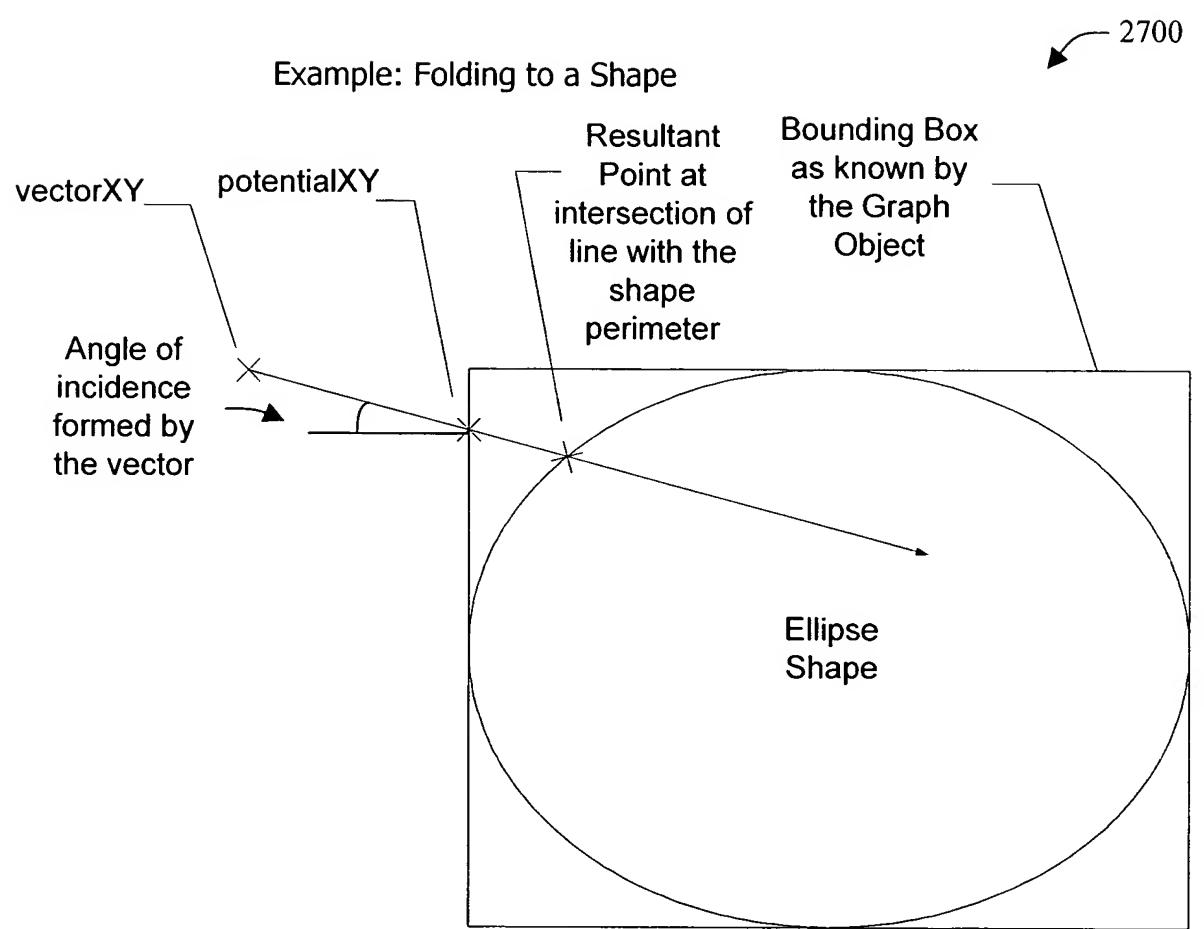


FIG. 27

FIG. 28

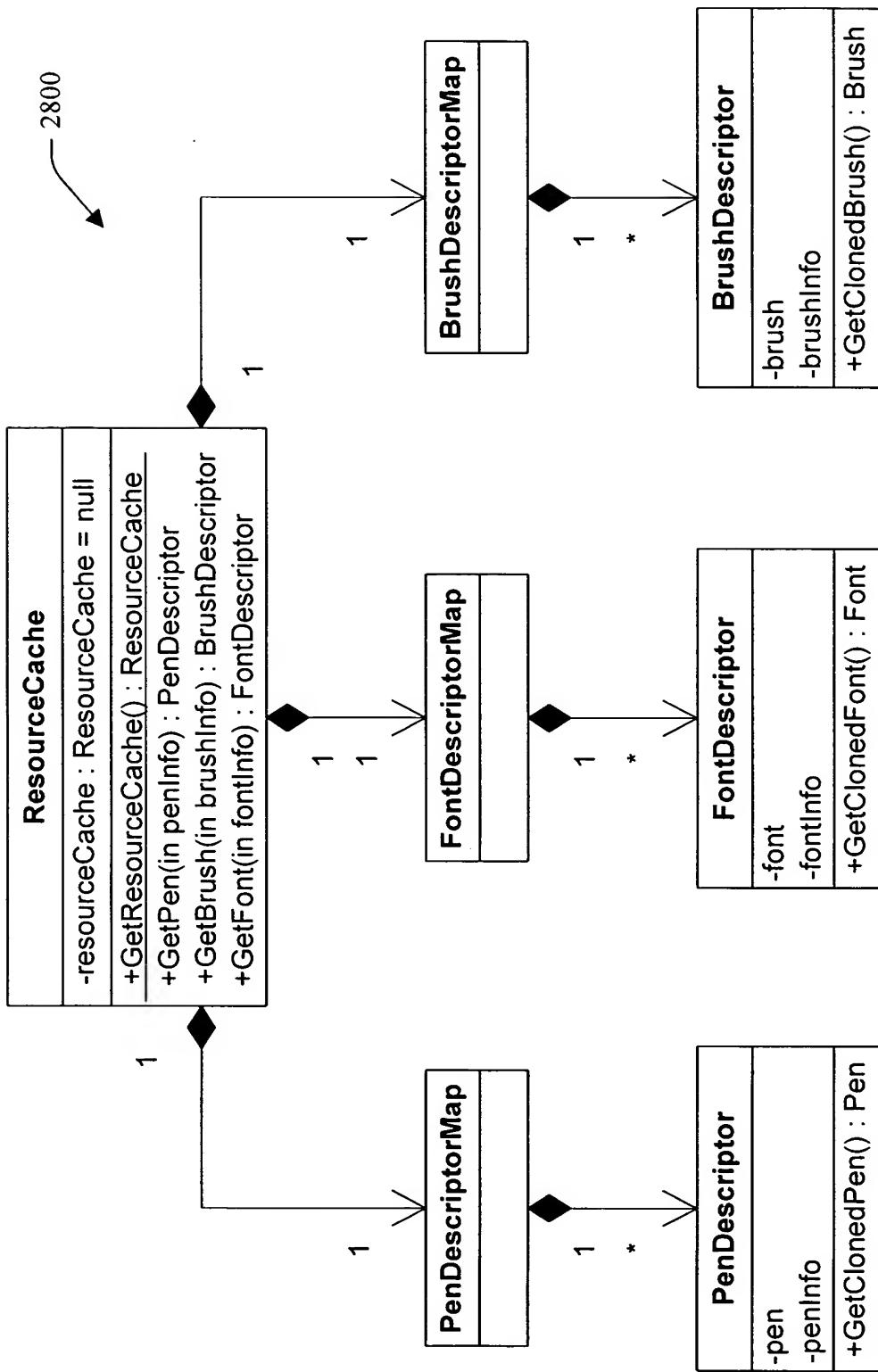
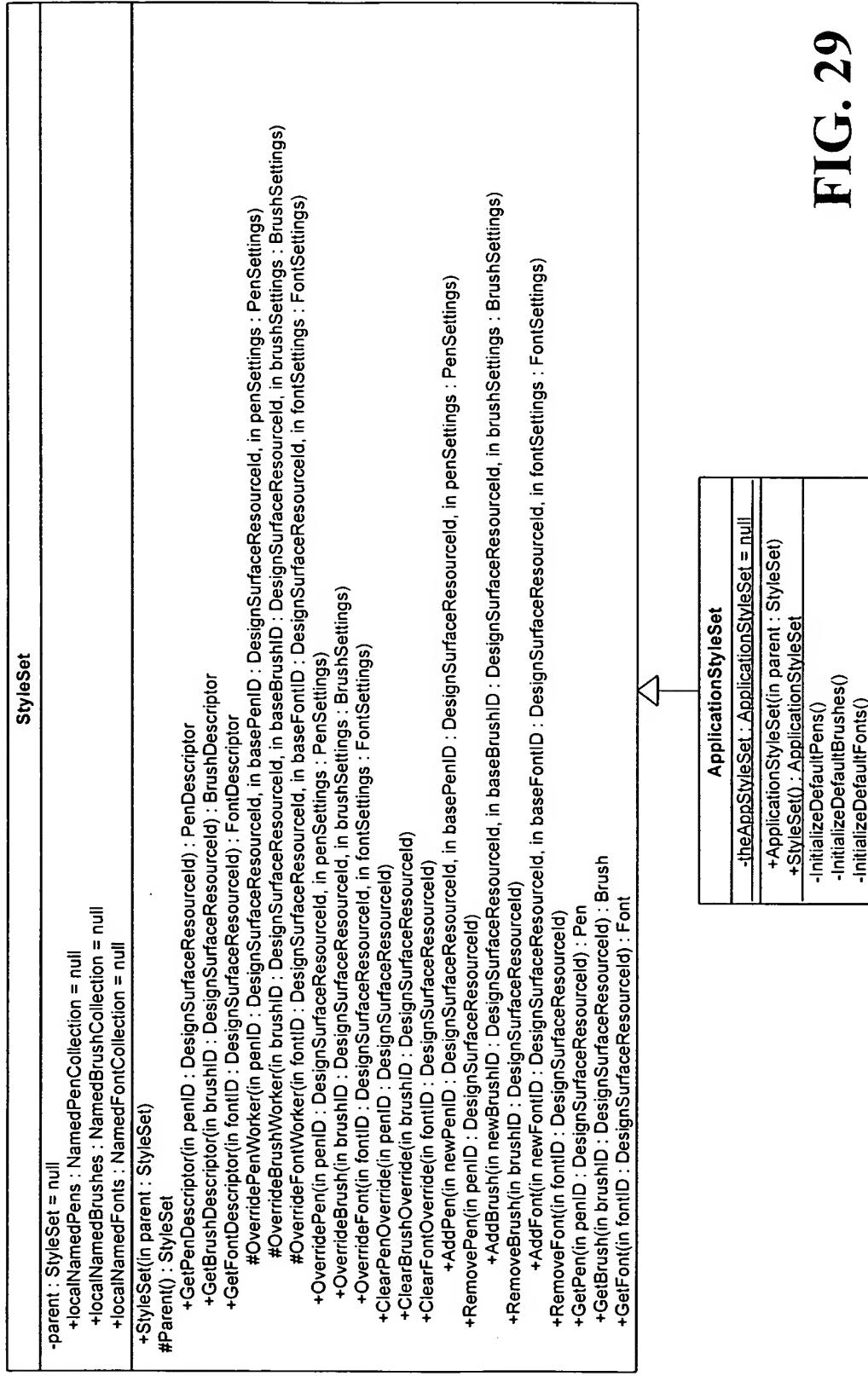


FIG. 29

2900



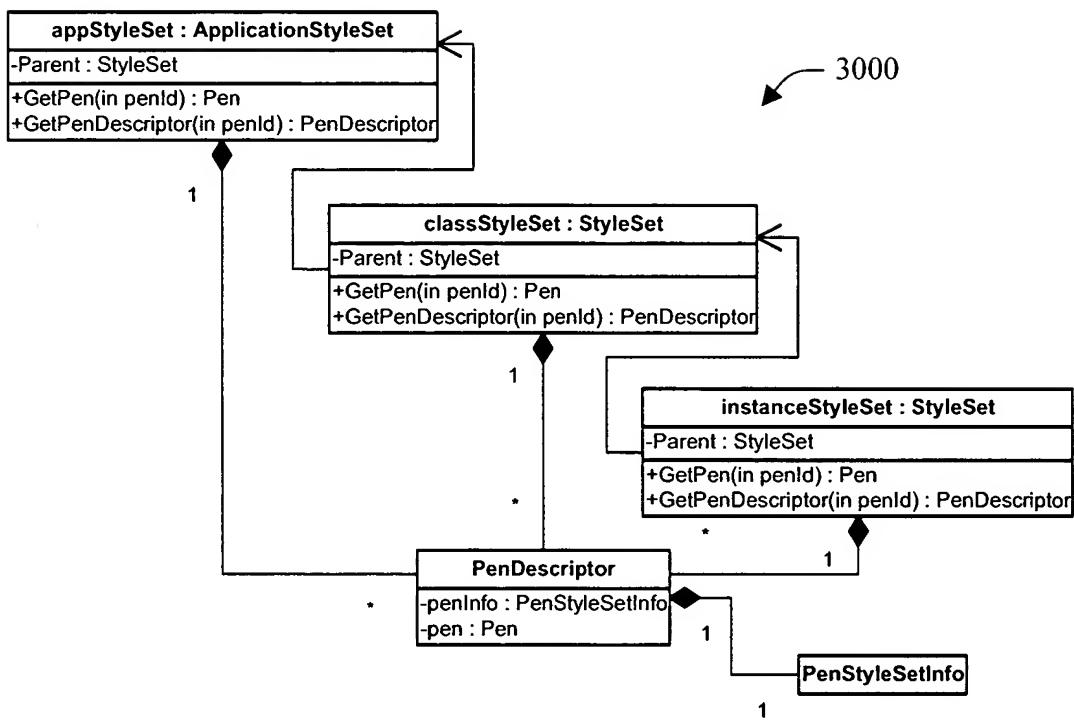


FIG. 30

3100

<i>ShapeSubField</i>
+ShapeSubField() +GetFocusable(<i>in parentShape : ShapeElement, in parentField : ShapeField</i>) : bool +GetSelectable(<i>in parentShape : ShapeElement, in parentField : ShapeField</i>) : bool +GetPotentialMouseAction(<i>in mouseButtons : MouseButtons, in point : PointD, in hitTestInfo : DiagramHitTestInfo</i>) : MouseAction +OnKeyDown(<i>in keyArgs : DiagramKeyEventArgs</i>) +OnKeyUp(<i>in keyArgs : DiagramKeyEventArgs</i>) +OnKeyPress(<i>in keyPressArgs : DiagramKeyPressEventArgs</i>)

FIG. 31

3200

DiagramItem
-shape : ShapeElement = null
-field : ShapeField = null
-subField : ShapeSubField = null
+DiagramItem()
+DiagramItem(in shape : ShapeElement)
+DiagramItem(in shape : ShapeElement, in field : ShapeField)
+DiagramItem(in shape : ShapeElement, in field : ShapeField, in subField : ShapeSubField)
+Shape() : ShapeElement
+Field() : ShapeField
+SubField() : ShapeSubField
+SetItem(in shape : ShapeElement)
+SetItem(in shape : ShapeElement, in field : ShapeField)
+SetItem(in shape : ShapeElement, in field : ShapeField, in subField : ShapeSubField)
+CanSelect() : bool

FIG. 32

3300

DiagramHitTestInfo
-diagramClientView : DiagramClientView = null
-hitItem : DiagramItem = null
-hitGrabHandle : GrabHandle = null
-emptyHitItem : DiagramItem = new DiagramItem()
+DiagramHitTestInfo(in diagramClientView : DiagramClientView)
+DiagramClientView() : DiagramClientView
+HitDiagramItem() : DiagramItem
+HitGrabHandle() : GrabHandle

FIG. 33

3400

<i>ShapeField</i>
+DoPaint(in e : DiagramPaintEventArgs, in parentShape : ShapeElement)
+DoHitTest(in point : PointD, in parentShape : ShapeElement, in diagramHitTestInfo : DiagramHitTestInfo)

FIG. 34

3500

SelectedShapesCollection	
-diagramItemCollection : DiagramItemCollection = new DiagramItemCollection()	
-selectionChanging : bool = false	
-diagramClientView : DiagramClientView = null	
-focusedItem : DiagramItem = null	
-anchorItem : DiagramItem = null	
+SelectedShapesCollection(in diagramClientView : DiagramClientView)	
+PrimaryItem() : DiagramItem	
+FocusedItem() : DiagramItem	
+AnchorItem() : DiagramItem	
+Add(in diagramItem : DiagramItem)	
+Remove(in diagramItem : DiagramItem)	
+Set(in diagramItem : DiagramItem)	
+Add(in diagramItems : DiagramItemCollection)	
+Remove(in diagramItems : DiagramItemCollection)	
+Set(in diagramItems : DiagramItemCollection)	
+Toggle(in diagramItems : DiagramItemCollection)	
+Clear()	
+Contains(in diagramItem : DiagramItem) : bool	
-Invalidate()	
+Count() : int	

FIG. 35

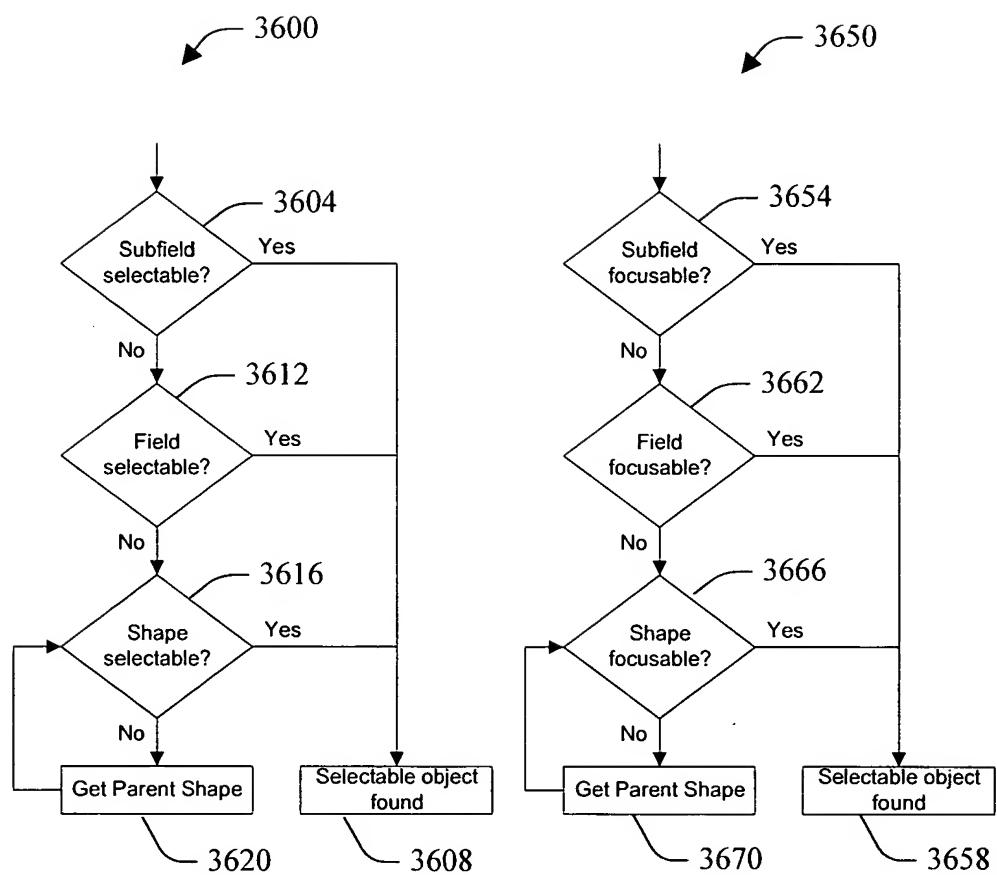


FIG. 36A

FIG. 36B

FIG. 37

3700

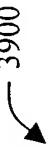
DiagramSelectionRules
+DiagramSelectionRules()
+GetCompliantSelection(<i>in</i> currentSelection : SelectedShapesCollection, <i>in</i> proposedItemsToAdd : DiagramItemCollection, <i>in</i> proposedItemsToRemove : DiagramItemCollection, <i>in</i> primaryItem : DiagramItem) : bool

3800

SelectedShapesCollection
+SelectedShapesCollection(in diagramClientView : DiagramClientView)
+PrimaryItem() : DiagramItem
+FocusedItem() : DiagramItem
+AnchorItem() : DiagramItem

FIG. 38

FIG. 39



ShapeSubField	
+ShapeSubField()	
+GetFocusable(in parentShape : ShapeElement, in parentField : ShapeField) : bool	
+GetSelectable(in parentShape : ShapeElement, in parentField : ShapeField) : bool	
+GetPotentialMouseAction(in mouseButtons : MouseButtons, in point : PointD,	
in hitTestInfo : DiagramHitTestInfo) : MouseAction	
+OnKeyDown(in keyArgs : DiagramKeyEventArgs)	
+OnKeyUp(in keyArgs : DiagramKeyEventArgs)	
+OnKeyPress(in keyPressArgs : DiagramKeyPressEventArgs)	

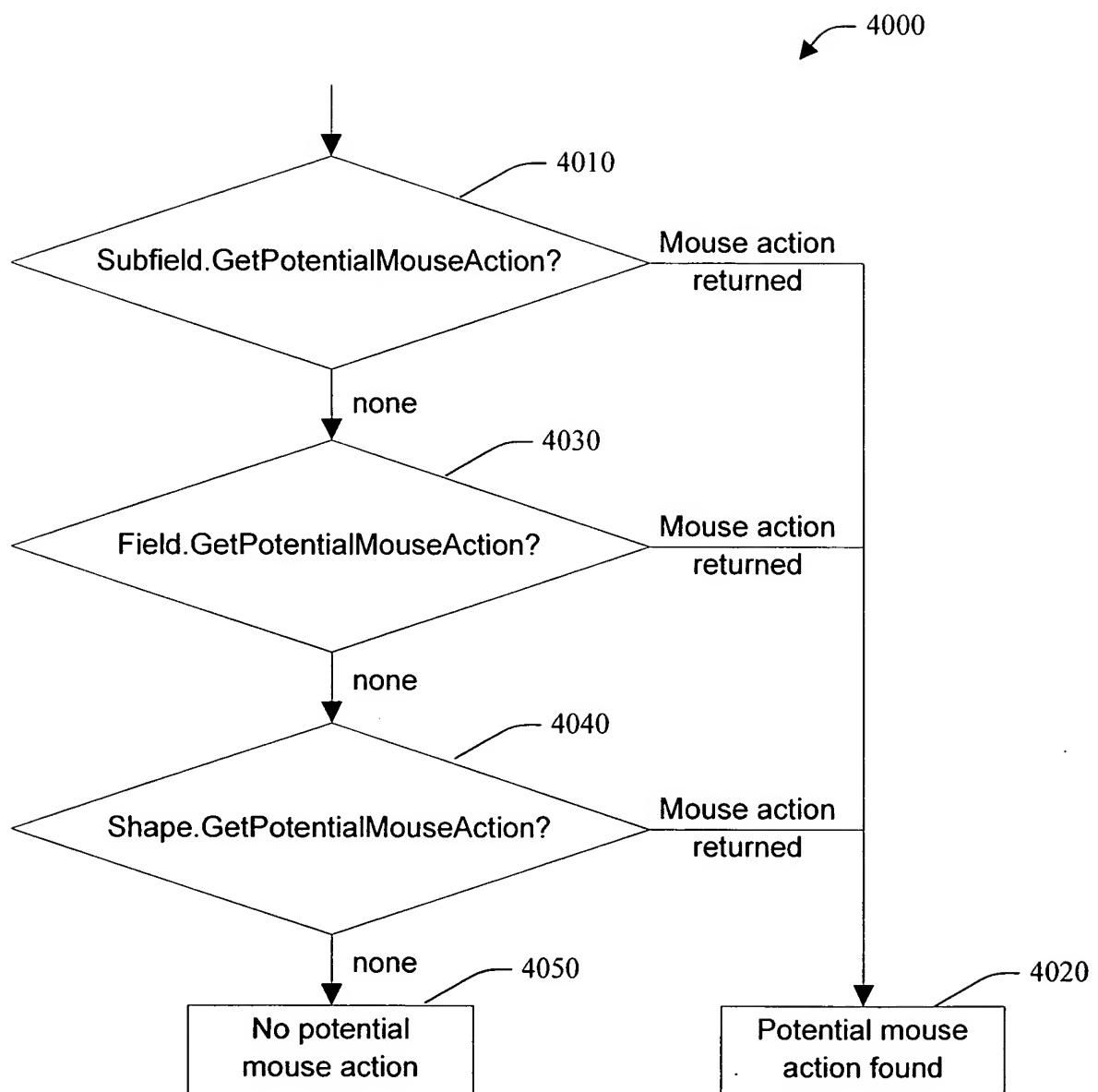


FIG. 40

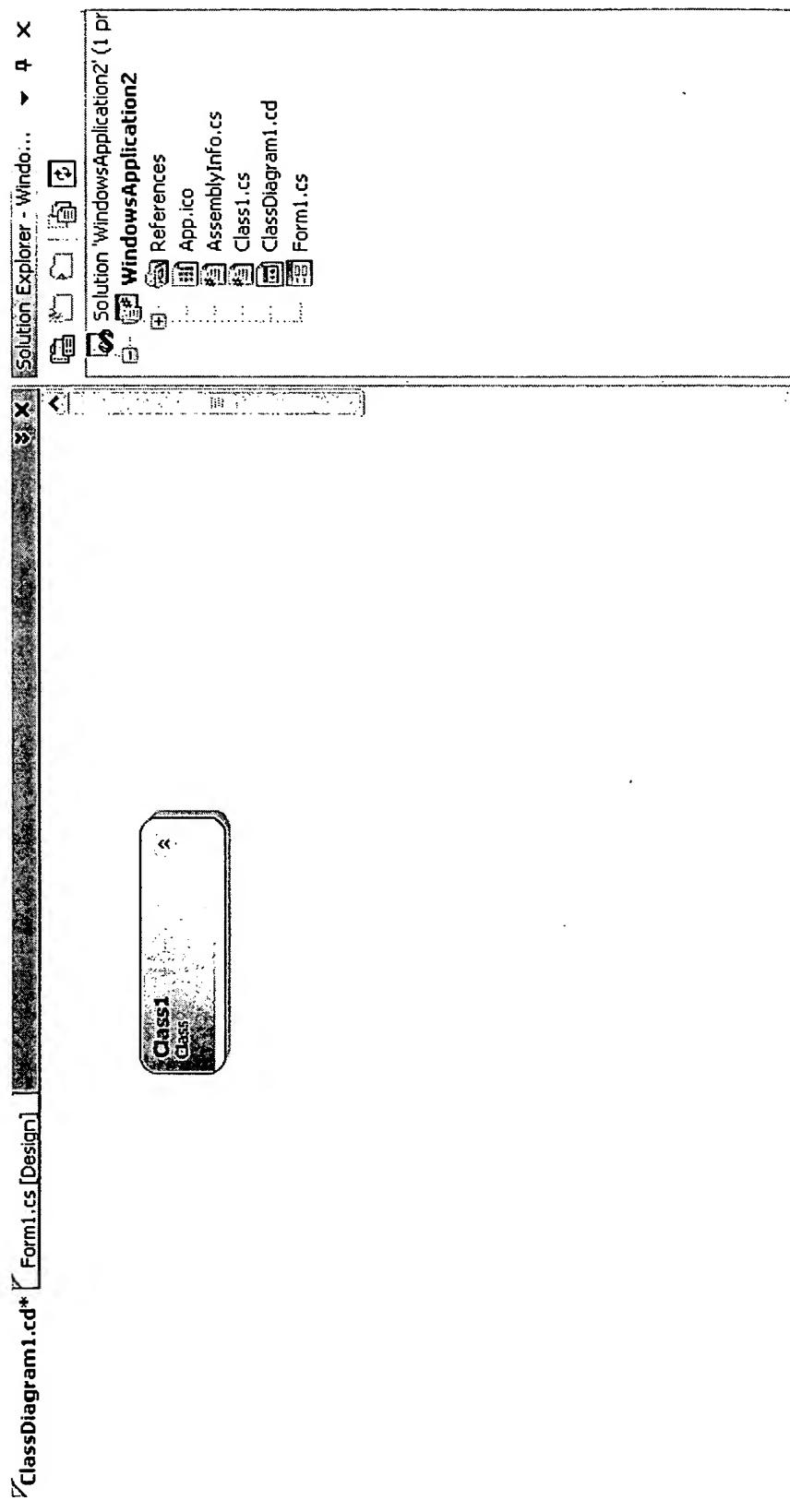
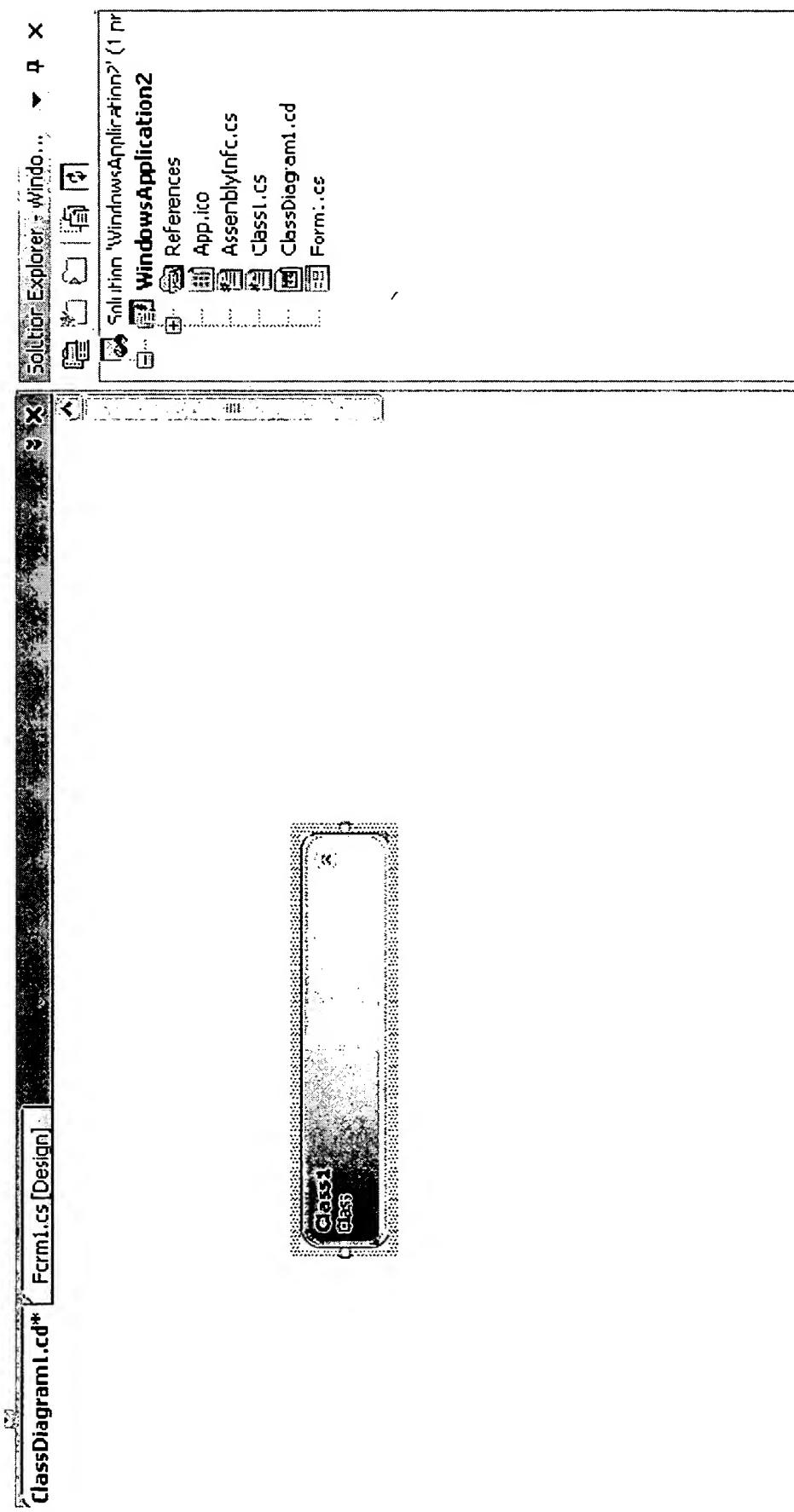


FIG. 41

FIG. 42



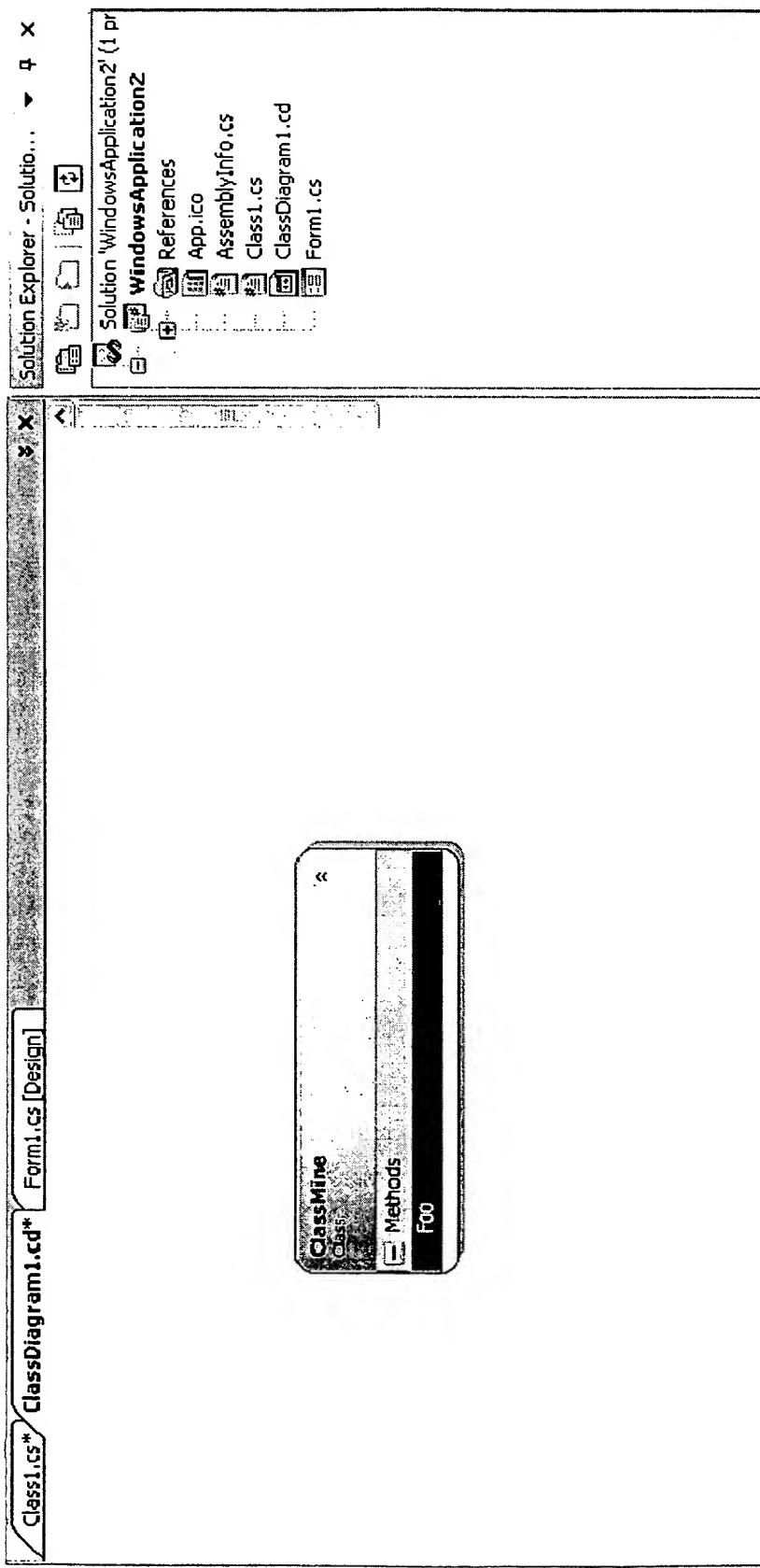


FIG. 43

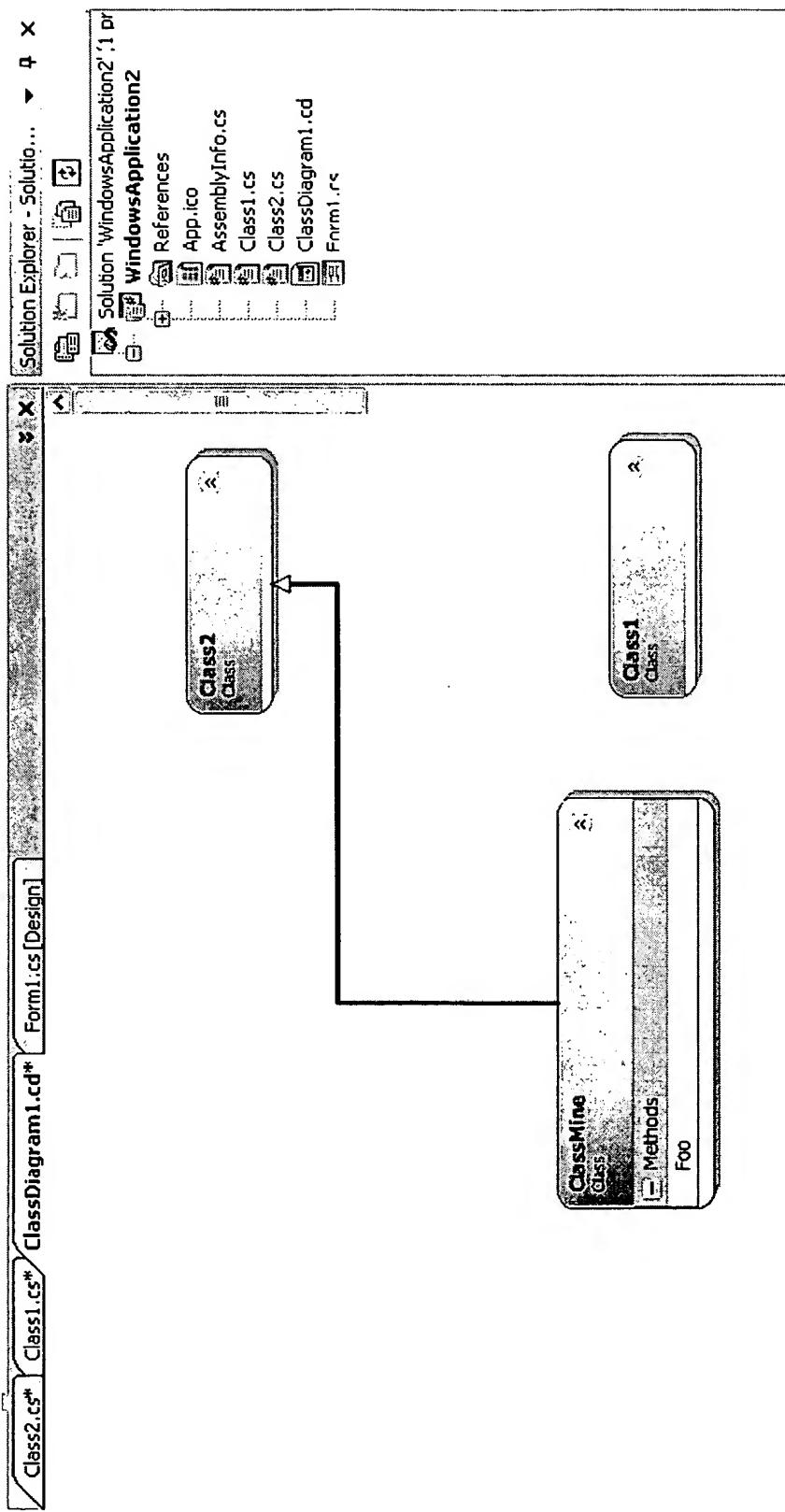


FIG. 44

FIG. 45

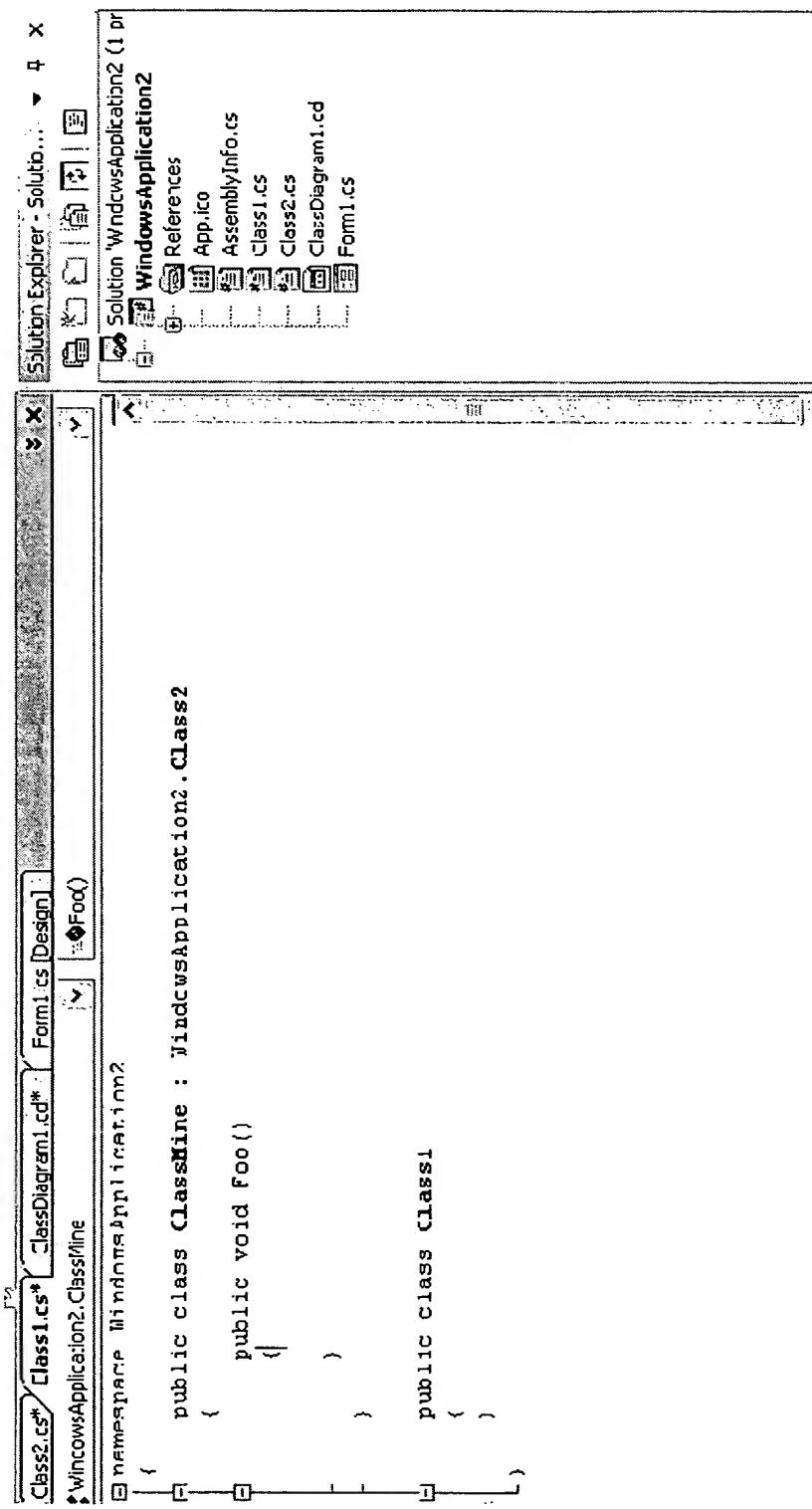


FIG. 46

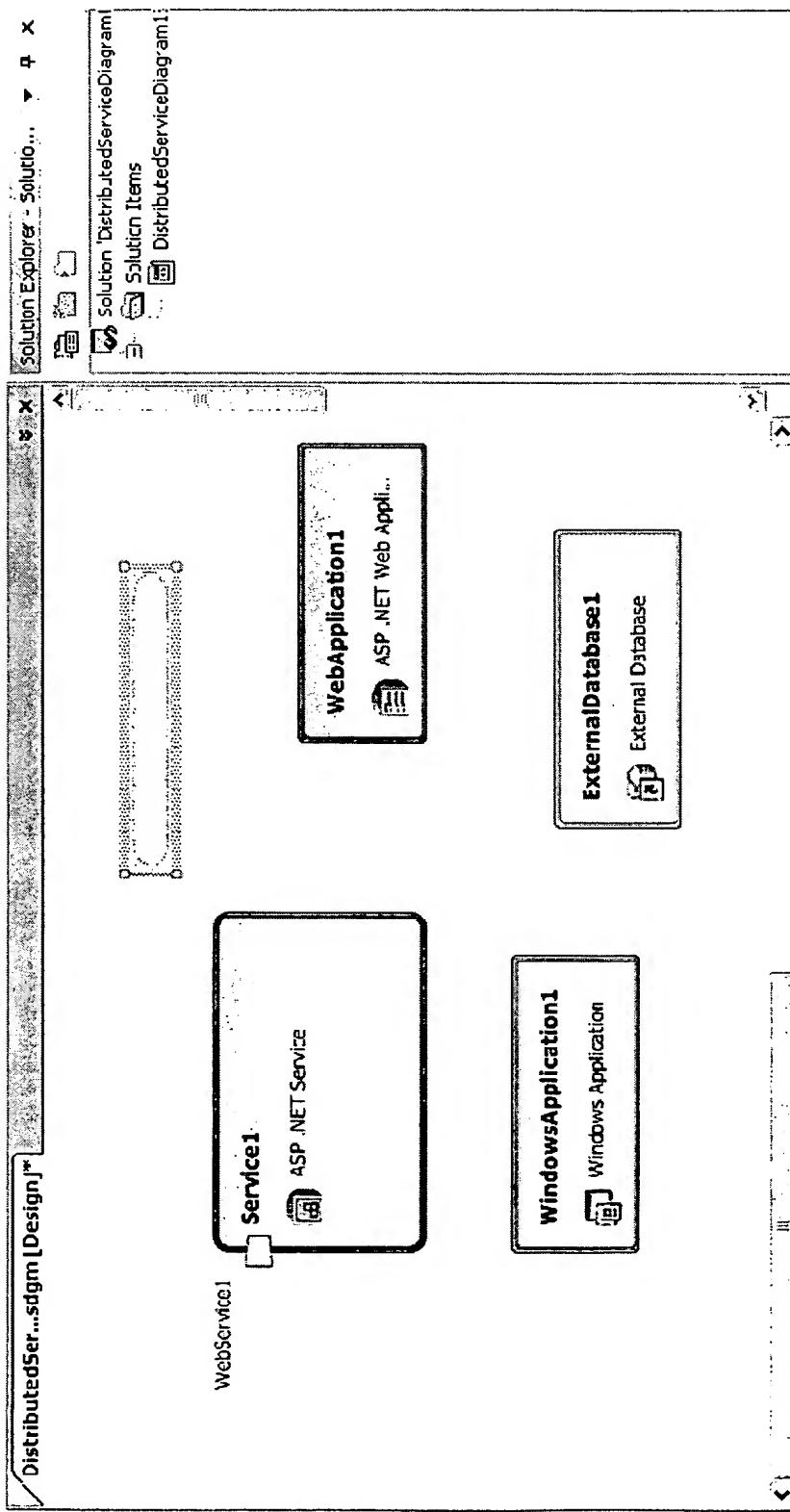
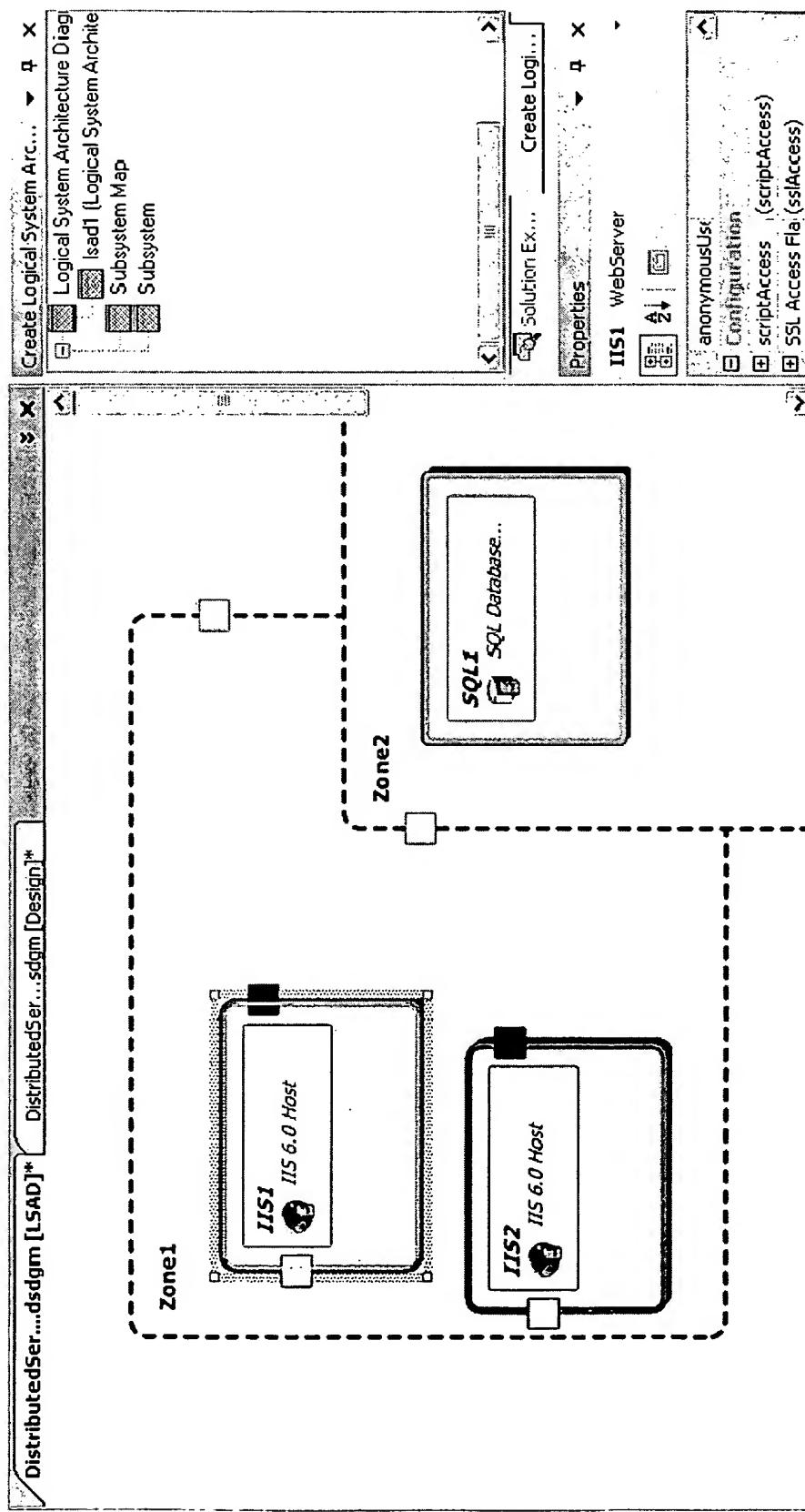


FIG. 47



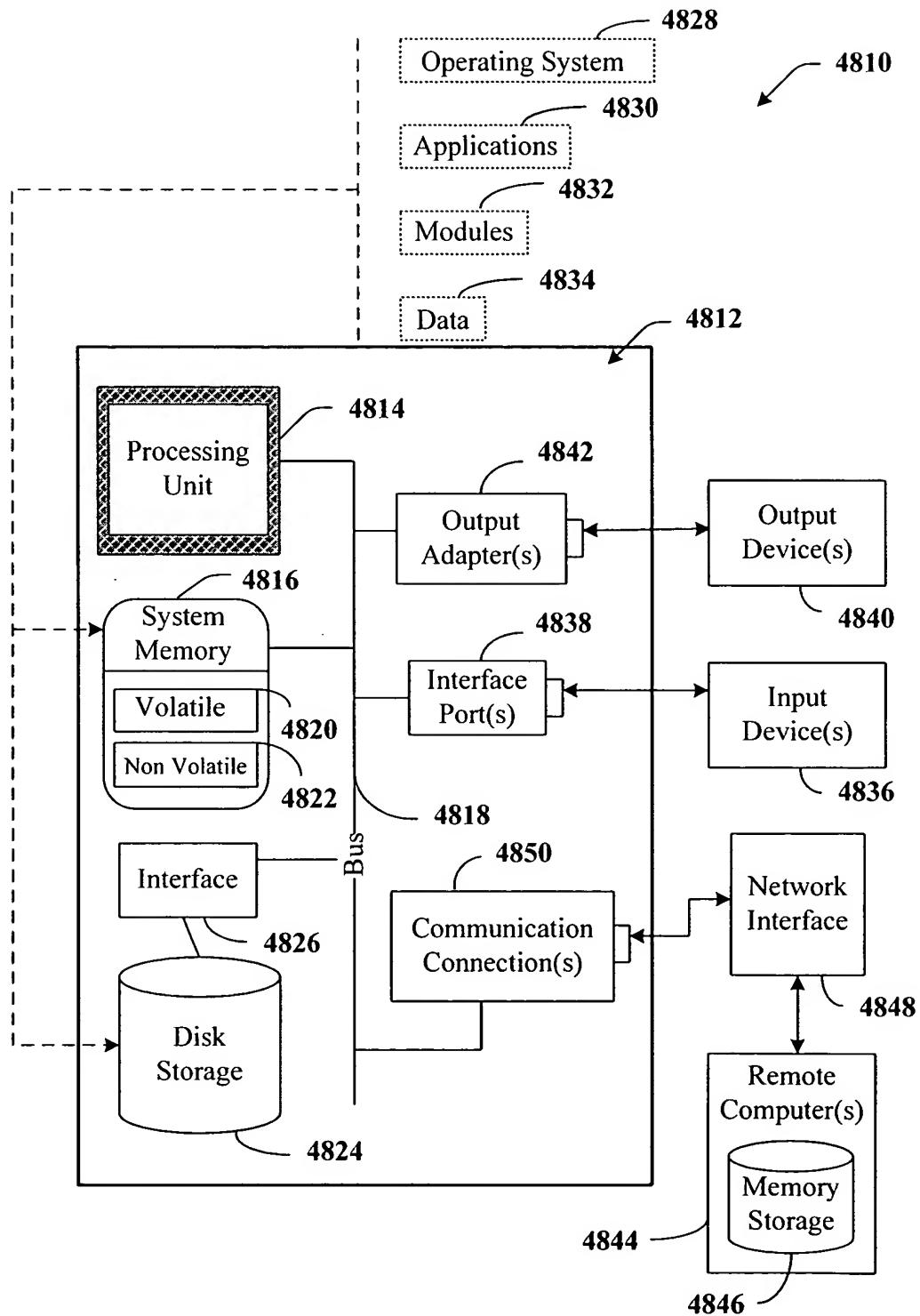


FIG. 48